# Sharing Deaf-Blind Methods, 1975

Midwest Regional Center for Services to Deaf-Blind Children

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# Sharing Deaf-Blind Methods — 1975

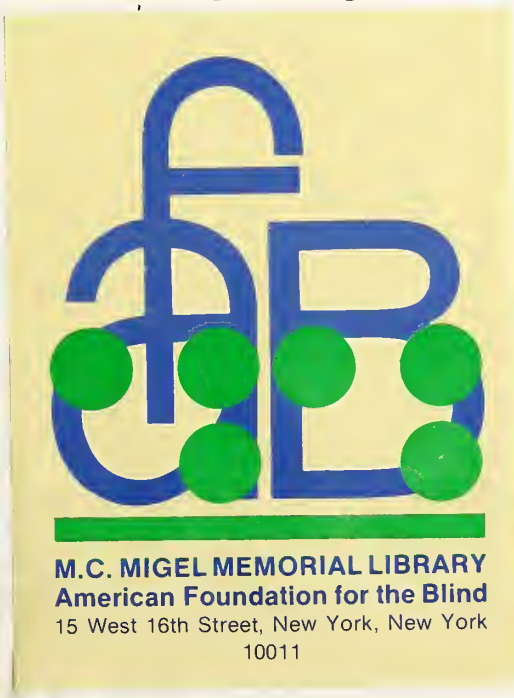
Proceedings of Two Regional Workshops for Professionals and Paraprofessionals Serving Deaf-Blind Children

in

Illinois - Indiana - Michigan
Minnesota - Ohio - Wisconsin

*edited by*
Michael T. Collins, Educational Consultant

Midwest Regional Center for Services to Deaf-Blind Children
Lansing, Michigan



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These workshops and proceedings were supported by funds from the United States Office of Education, Bureau for Education of the Handicapped, Title VI-C, P.L. 91-230; Administered by the Midwest Regional Center for Services to Deaf-Blind Children, Box 420, Lansing, Michigan 48902.

# FOREWORD

In Py 74-75, the Midwest Regional Center for Services to Deaf-Blind Children sponsored two regional workshops for staff in the six-state region. The predominant purpose of both workshops was to allow for the sharing of instructional methods and materials between staff, between programs, and between regions. The first workshop was held in October for approximately 100 teachers in the region; the other was held in May, for the same number of paraprofessionals.

A regionwide inservice needs assessment study revealed that staff had been satiated with clinical information and theoretical presentations in the past, and that specific classroom techniques and ideas ranked as being of greatest importance for inservice training. The workshops were planned accordingly, so that the needs of the majority of the target populations (teachers and aides) could be met.

Intentionally, every speaker at these workshops was a person with extensive "hands-on" experience with deaf-blind children. Thus, it was possible to create an atmosphere of idea-sharing, wherein theory sidestepped to allow practice to become the focal point of discussion. In this kind of workshop, speakers and participants can share not only techniques themselves, but also the triumphs and frustrations, the humor and the tears, the energies and the exhaustion that teaching brings to every deaf-blind staff. To quote the eminent Guru Bill Smith, Educational Specialist of the Mountain Plains Regional Center, "Techniques don't teach, people do."; and people are made up of many experiences, thoughts, feelings and emotions. It is through the sharing of not only the external tools and methods, but also our internal, personal resources and strengths, that we all grow as educators of the deaf-blind.

In addition to the speakers who have submitted papers for this publication, special thanks are in order to a number of people whose contributions were invaluable to the success of these workshops:

At the teacher workshop, Betty Scanlan, Bernita Sims, Norma Tedder and Mike Orlansky, all of whom participated in John Tracy Clinic's Project Spinoff, provided an excellent presentation on the Los Angeles project, its content, and its implications.

At the paraprofessional workshop, Nance Osterholt, Bernita Sims, Kathy Trimmer and Kathy Turiansky all provided excellent presentations on instructional materials and methods. However, due to the visual nature of their demonstrations, slide packages, and videotapes, and due to the quantity of material that they presented, a mere written description of their presentations in these proceedings could not be a sufficient representation of their contributions.

Debbie Gourley and Tippy Timmons, both of Michigan State University, who were Administrative Interns at the Regional Center in the spring of 1975, were very instrumental in the planning, coordination and execu-

tion of the paraprofessional workshop. We commend them for their enthusiasm, creativity, and contributory spirit.

Michael Collins
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PART I
Teacher Workshop
October, 1974

# CURRENT STATUS OF THE RUBELLA PROBLEM

BY

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A paper presented at the Midwest Regional Center Teacher's Workshop
Royal Inn, South Bend, Indiana - October 17, 1974

# CURRENT STATUS OF THE RUBELLA PROBLEM

by Philip R. Ziring, M.D.

Rubella, or German measles as it is popularly known, was recognized as a clinical disease distinct from other common rash illnesses such as measles or scarlet fever at the beginning of the nineteenth century. However, it was considered little more than a clinical nuisance until 1941, when Norman Gregg, an Australian opthalmologist, first made the association between congenital cataracts in newborn infants and an epidemic of rubella in the community about nine months earlier. Within a few years, scientists around the world were able to confirm his suggestion that a mother who contracted this viral illness early in pregnancy might give birth to an infant with not only cataracts but defects involving almost every organ system.

In 1964 the most extensive outbreak of rubella in 30 years spread from the Eastern seaboard to all areas of the United States. In the New York metropolitan area, more than 1,000 children were born with birth defects related to maternal rubella infection. In the country at large, an estimated 30,000 births were similarly affected.

Because of the special nature and the unusual magnitude of this problem, a Rubella Birth Defect Evaluation Project was established at New York University with the help of an emergency grant from the National Foundation-March of Dimes. In order to offer a comprehensive program to these affected families, a team was assembled which included physicians, nurses, educators, social workers, and laboratory technicians. The number of patients followed in the program has gradually increased over the years to include more than 400 children.

In 1962 a new tool to investigate this disease was provided by simultaneous reports from two different teams of scientists who described the isolation of rubella virus in tissue culture. The serologic and virologic

techniques which have been made possible by this discovery have unearthed many new facts and provided physicians with a sound approach to the management of the problem of rubella in pregnancy and the evaluation of the child with rubella syndrome. The successful cultivation of rubella virus was followed by the development of a safe and effective vaccine which was licensed for use in 1969.

## POSTNATAL RUBELLA

German measles is typically a mild illness in children and young adults; it occurs principally in the winter and spring months. The disease is characterized by a pinkish-red maculopapular, generalized rash lasting for about two to three days. However, the rash may be no more than a fleeting blush. In fact, rubella may occur without a rash in a significant number of children. Children with subclinical rubella continue their daily activities because they are not ill; thus they continue to disseminate virus throughout the community.

The rash of rubella has no characteristic feature; it is often indistinguishable from rashes caused by other viral infections or drug sensitivity. This diagnostic confusion has given rise to the popular, but erroneous, idea that individuals may have rubella many times. Exanthems may occur frequently in an individual person, but for all practical purposes, rash illness due to rubella occurs only once. In fact, this is the basis for use of any rubella vaccine. There would be little value to immunizing an individual with a vaccine which did not protect him against subsequent attacks of the disease.

A troublesome feature of rubella in adults, occurring most frequently in post menarchal females, is joint complaints. The complication can range from mild aching in one or two joints, lasting for a day or two, to full blown arthritis with effusion lasting for a week or more. Fortunately,

all cases of rubella joint involvement seem to be transient, and there is no evidence that rheumatoid arthritis or other permanent joint damage can result from rubella arthritis.

## CONGENITAL RUBELLA

In contrast to the usually benign illness which follows rubella virus infection in the child or adult, the effects of this same virus infection on the developing fetus may be devastating. After intimate exposure to a person with rubella, a susceptible person may develop clinical symptoms and rash in approximately two to three weeks. Virus is usually present in the blood of the pregnant woman for about one week before the rash appears. It then rapidly disappears from the blood as antibody is produced, although it may persist in the nasopharynz and tissues for up to two weeks after the rash disappears. During the period of viremia, infection of the placental tissues may take place, with subsequent spreading of the fetal circulation and the multiplication of virus in virtually every fetal organ. The effects of such virus growth are dependent on the time during gestation that such infection takes place and the length of time the virus continues to grow in fetal tissues.

The complicated stages which fetal organs pass through on the way to maturity occur primarily from the second to sixth week of pregnancy; it is during this period that rubella infection produces the highest incidence of defects of the heart and eyes. Therefore, after the eighth week of gestation, there is an abrupt decline in the incidence of cataracts, congenital glaucoma, patent ductus arteriosus, and other forms of congenital heart disease. On the other hand, the brain and inner ear structures continue to develop throughout pregnancy and remain susceptible to damage by the rubella virus when maternal infection occurs throughout the first and even the early second trimester of pregnancy. In the last half of pregnancy, the placental barrier and the fetus' own immunity defenses seem to protect the developing tissues.

Birth defects do not result from rubella late in pregnancy. In fact, we have not been able to detect evidence of fetal infection when such pregnancies come to term. In contrast, only a small percentage of the children in our study are free of some defect where the laboratory results have demonstrated fetal infection.

## CLINICAL MANIFESTATIONS

Widespread fetal infection with rubella virus results in involvement of virtually every organ system. Among 376 children enrolled in the Rubella Birth Defect Evaluation Project, the following major birth defects were present: deafness, 252; heart disease, 182; bilateral cataracts, 58; unilateral cataracts, 50; glaucoma, 12; psychomotor retardation, 170; and neonatal thrombocytopenic purpura, 85. Heart disease was the sole manifestation in 7, and deafness the only defect in 68. It is our impression that many children attending schools for the deaf, but having no other abnormality (so called "idiopathic deafness"), may in reality be children with congenital rubella.

Newborn Period. In full term and premature infants, there are often subtle clues which can aid the physician in making the diagnosis of congenital rubella. All too often it is the mother who returns to the private doctor months after giving birth with the complaint that the child "has something in his eyes" or does not seem to hear. Since approximately 80% of the children in our study were shedding rubella virus, and therefore were contagious at birth, early recognition of this syndrome is vitally important to others as well as to the patient.

Neonatal thrombocytopenic purpura is the most obvious of these manifestations. The lesions may vary from red-purple, discrete macules measuring 3-8 millimeters in diameter distributed all over the body, (thus giving rise to the expression "blueberry muffin baby") to a scattering of fine petchiae which are easily overlooked. This petechial eruption may

be indistinguishable from that noted in the infant with neonatal sepsis, and, therefore, rubella syndrome must be considered in the differential diagnosis of sepsis of the newborn.

The thrombocytopenia, with its resultant rash, usually resolves by the time the child is one month old. The most common clue to congenital rubella present in the newborn period is low birth weight for gestational age. Alert nursery personnel should suspect congenital rubella in any full term infant whose birth weight is low or significantly lower than the birth weight of his siblings. One must then search for other evidence of congenital rubella. For example, in our group of children with neonatal thrombocytopenic purpura, 67% had heart murmurs indicative of congenital heart disease and 45% had cataracts. X-rays of the long bones during this period often reveal characteristic changes which consist of radiolucent streaks along the long axis in the metaphyseal portions of the long bones, giving them a "celery-stalk" appearance. Neonatal hepatitis with jaundice is also often noted in the child with thrombocytopenic purpura. The death rate in this high-risk group exceeded 35% during the first 18 month of life.

Many children with congenital rubella appear to be perfectly normal in the newborn nursery. In the majority of our patients, the effects of rubella during the mother's pregnancy only appear as the infants grow older. Therefore, these children must be kept under careful surveillance until their full involvement can be determined.

Congenital Heart Disease. Patent ductus arteriosus, with or without stenosis of the pulmonary valve, pulmonary artery, or its branches, is the most common cardiac malformation seen in children with congenital rubella. Other defects of the aortic arch (aortic stenosis, coarctation, ventricular septal defect) are also seen, but much less commonly. Congenital heart disease, including cyanotic heart disease, may represent chance association.

In most instances, the cardiac defect is not immediately life-threatening. Often, the children can be followed until two years of age or later before diagnostic studies are performed. On the other hand, a minority of children with congenital rubella decompensate in early infancy. In these children, recurrent pulmonary infections and congestive heart failure with large left to right shunts require vigorous therapy with antibiotics, digitalis, diuretics, and oxygen. Death before the age of six months in this group is not uncommon. Cardiac surgery for patent ductus arteriosus, performed by an experienced team frequently can be life saving. After the cardiac defect is corrected, the infant may undergo an acceleration in growth and development.

Eye Defects. Pearly cataracts, bilateral or unilateral, associated with microphthalmia, are the most characteristic, although not the most common, ocular manifestation of congenital rubella. These cataracts may be so small at birth that they may be missed easily if not looked for carefully. The cataracts result from direct virus infection of the lens of the developing eye. After birth the virus may persist in the lens for an indefinite period of time after it can no longer be detected elsewhere in the body. In one child in our study, virus disappeared from all tissues by the age of eight months, but was still present in cataractous material when surgery was performed two years later. The timing and nature of the operative procedure for rubella cataracts has been a controversial matter. In our experience, results have been better when surgery was deferred until the eye has reached sufficient size for the ophthalmologist to operate with some facility (usually when the child is approximately one year old).

Congenital glaucoma is a much less common manifestation of congenital rubella than is cataract (ten children with cataracts to every one with glaucoma). The cornea is large and steamy, and the intro-ocular tension is increased. Medication is not effective in the treatment of this defect, but

prompt surgical intervention may yield excellent results. Delay in diagnosis or poor operative results often lead to blindness.

Retinopathy is the most common ocular manifestation of congenital rubella. In this condition, discrete black areas of pigmentation, interspersed with areas of depigmentation, give the retina a "salt and pepper" appearance. There is no evidence that the presence of this pigmentary abnormality interferes in any way with normal vision. However, its presence strongly suggests the diagnosis of congenital rubella in a child with hearing loss or other birth defects.

Hearing Loss. Deafness is the most common manifestation of congenital rubella. It may be the only defect present in the child whose mother contracted rubella after the eighth week of pregnancy. The hearing loss results from damage to the Organ of Corti, and is of a permanent, sensorineural type. It may be unilateral or bilateral, mild or severe. Early diagnosis of hearing loss by experienced audiologists is critical for rehabilitation of the deaf child.

When hearing loss is detected in infancy, amplification with hearing aids and early initiation of appropriate auditory training can help the child to develop speech. The earlier these measures are instituted, the better the result. Children can begin training programs where available before their first birthday.

Neurologic Defects. Almost one half the children in our program (170/376) manifested evidence of retarded neuromotor development. This covers a broad spectrum, encompassing minimal intellectual impairment, hyperkinetic behavior, severe mental retardation, or typical cerebral palsy. Here again, intrauterine rubella virus infection may be responsible for a variable amount of brain injury, both by preventing appropriate development of neural tissue and by destroying healthy tissue already formed during the prenatal and postnatal periods. These children often do not "catch-up" to normal level of functioning. However, their

prognosis frequently is better than what one might predict during infancy.

## EDUCATION AND REHABILITATION

The infant with congenital rubella, deprived of vision by cataracts and the ability to hear by sensorineural deafness, is adrift in a lonely world. Without early intervention by an experienced multidisciplinary team, this isolation from the rest of the world becomes more and more difficult to breach. The chances of success through rehabilitative measures diminish progressively as the child grows older; therefore early case finding is essential. Too often congenital rubella is regarded as hopeless from the outset. Auditory training and amplification of sounds must begin in infancy. Surgery to restore useful vision must be undertaken at the right time by an ophthalmologist experienced in dealing with such congenital defects. Physical medicine and orthopedic services should be provided to children with spastic deformities. Special educators must play an important role in designing and staffing programs of rehabilitation, and family counseling is especially critical during the early years. Young children should not be consigned immediately to minimal care, custodial type institutional facilities for the severely retarded without an adequate trial in an educational-rehabilitation program.

## VACCINE

In 1966 Drs. Parkman and Meyer of the National Institute of Health reported the development of the attenuated HPV-77 strain of rubella virus for use as a vaccine. Extensive studies revealed that the vaccine was well tolerated and immunogenic. The vaccine-virus was not communicable. Two derivatives of this vaccine, HPV-77DE, and HPV-77DK, have been licensed for general use.

The major thrust of the rubella vaccine program has been directed at preschool and school-age children. It is hoped that immunizing this ambulatory susceptible group will decrease the number of susceptible persons

left in the population to serve as a reservoir for another major rubella epidemic. Widespread use of this vaccine has been encouraged by a number of governmental and private agencies. In New York City alone, more than 300,000 doses of vaccine supplied without charge through the New York City Department of Health have been administered to young children in the schools and day nurseries.

Under carefully controlled conditions, vaccine has also been administered to women. However, side effects of rubella vaccine have been more common in this group than in children. Vaccination of adult women causes transient joint pain or swelling in adults, especially women, which follows a pattern similar to that seen after natural rubella.

It is not known whether rubella vaccination of a susceptible pregnant woman could produce anomalies in her developing fetus. Therefore, no woman of child bearing age may be considered for rubella immunization unless it is certain that she is not pregnant and will not become pregnant for at least two months after vaccination. Obviously, this characteristic of rubella vaccine rules out any type of mass campaign of rubella immunization for women of child bearing age.

Fortunately, most women in the United States are immune to rubella because of infection in childhood. As the rubella hemagglutination-in-hibition (HI) antibody test becomes widely available, the time may come when women will learn of their rubella immunity status when they apply for a marriage license. The same blood sample obtained for syphilis serologic testing could also be studied for rubella antibody. The women found to be rubella susceptible could receive the special attention they deserve. The others (the majority) could be reassured that they were immune to the hazards of rubella in pregnancy.

# TREATMENT MODALITIES: DEAF-BLIND CHILDREN WITH CONGENITAL RUBELLA

J. Lewis Mylar, Ph. D.

# TREATMENT MODALITIES: DEAF-BLIND CHILDREN WITH CONGENITAL RUBELLA

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Congenital Rubella is a multi-system disease seriously affecting the normal cognitive, emotional, and social development of individuals. Physical and neurological handicaps involving major sensory systems, such as seeing and hearing, are often accompanied with a variety of complications. Mental retardation, brain dysfunction, deviations in intellectual development, autism, behavioral disturbances, etc., are often encountered in the education of the Deaf-Blind Rubella child. This paper will discuss a variety of applied psychological/clinical techniques used with the "garden variety" Rubella child at the Deaf-Blind Program of the Colorado School for the Deaf and Blind in Colorado Springs, Colorado.

Intrusion into the awareness of the Deaf-Blind child cannot be a process exclusive to educational philosophy and technique or to developmental theory or operant conditioning. The task of dealing with the aftermath of a multi-system disease must be guided by a multi-system approach. Factors comprising the child's entire education and training must be focused and unified. The teaching staff must be integrated with dormitory and treatment staff. Program staff must be locked into positive working relationships with parents and guardians. All those interested in the child reaching his potential must be synthesized with an overall philosophy of the child and his education.

At the Colorado Program, the aim is toward unification and integration of a multi-system approach. A goal is the cohesion of the educational-emotional-developmental-behavioral-social dimensions. It is hoped that results will shed light upon a comprehensive philosophy and effective approach toward the Deaf-Blind child. Practical concern runs from broad behaviorally related problems to the modification of discreet developmental antecedants designed to reconstruct and project the child through certain stages of development and growth. Problems of the

children are often analyzed from developmental educational behavioral positions. Psycho-educational treatment techniques are developed out of findings of general psychology or any other reasonable source. Treatment interventions are prescribed and then followed through using a trial-error model. When the data shows little or no positive effect, a new treatment plan is developed. There are successes and failures--some very dismal. The following will be an attempt to relate this process to specific but common problems found in the Deaf-Blind child.

## I. A CASE OF MODELING AND IMITATION

Often the problem of teaching complicated forms of behavior appears overwhelming. The task of predicting a stable alteration of behavior is especially difficult when dealing with human beings. Usually one is not immediately concerned about one isolated behavior, but a myriad of complex clusters and associated layers. Faced with the practical situation of moving a child's complex behavior from one point to another has been made somewhat easier by the definitive works on Imitation by Bandura and Walters (1963). The use of imitation in the acquisition of new behavior is an extremely common, highly effective technique, but one which is often overlooked. Children imitate others, especially those with whom it is easy to identify. Consequently, peers serve as a very valuable resource often overlooked.

Piaget has investigated the use of imitation in the acquisition of infant behavior. It is noted that many Deaf-Blind children are functioning developmentally within Piaget's definition of the "sensorimotor" stage which typically continues until approximately two years of age. During crucial developmental stages, Piaget has noted the effect of deliberate variation of behavior in the imitative arena. He has described the acquisition of new behavior surrounding an infant spontaneously varying his behavior about the established schema. Piaget specifically emphasizes the deliberate variation of behavior for the sake of change. In this, new experience and learning begins to build, expand, and become more complicated. Questions regarding the Deaf-Blind infant's basic developmental schemas are paramount. Without the help of early sensory stimulation programs, developmental stages are skewed and thrown into complicated disarray. However, the acquisition of learning through imitation remains a viable means in the development of intelligence, though earlier levels in the Deaf-Blind child are often underdeveloped. It has been noted in the work of

Piaget, Bandura and Walters and in some peer reinforcement research, that structured imitation and modeling was attempted.

This case of imitation and modeling involved a six year old Caucasian male. His congenital Rubella effected his hearing, as does the condition in 63% of the victims. In addition, he also has marked visual difficulties. He is bright and interacts with children and adults in a very high level socialized manner. He uses sign and attempts verbal communication. Treatment was implemented when he had a signing vocabulary of approximately 100 words. This high functioning boy had many unsocialized mannerisms often seen but misinterpreted in the bright Deaf-Blind child. Aggressive and intrusive behaviors were interpreted as attempts at human interaction and therefore seen as potentially quite positive. General behavior was described as inattentive, impulsive, controlling and aggressive. Particular concern was for his inability to withhold gratification in a group setting. Previous specific strategies employed included the use of "time out" for temper tantrums.

Since this child was a very bright and achieving student, it was felt that a transfer to the Deaf Program would be advantageous for him. Contingent upon acceptance into a Deaf classroom was his ability to relate and maintain himself in a working group as opposed to a one to one situation. The treatment plan involved progressive contact with deaf children on a graduated and controlled basis. Initial stages involved the use of a deaf "buddy" who received reinforcement during recess contingent upon his effecting involvement with the subject and later the other children from the Deaf class. This level found the child participating in many inappropriate and socially aggressive interchanges which were soon changed because of the interaction, observation, modeling and imitation of the other deaf children. The program was increased to also include a recreational program in the Deaf School gymnasium. Finally, the child was gradually incorporated into the Deaf classroom. He began on a limited basis and then became progressively more involved. Deaf Children in the program were informed the subject needed to become more like them. In this, it was often observed that helping agents would demonstrate how to respond, play, or learn a new task. As the new school year began, this child was incorporated full time into a Deaf class. The use of imitation and modeling in a very direct and simple way allowed this Deaf Blind child to acquire a new set of behaviors which were appropriate and acceptable to a traditional Deaf classroom situation.

## II. A CASE OF CLASSICAL CONDITIONING

Classical or Pavlovian conditioning can be described as a process by which new stimuli come to elicit responses essentially similar to those elicited by the original stimuli. In this type of learning situation, one stimulus is repeatedly paired with another stimulus until the second stimulus elicits the response originally attached only to the first. Consequently, if a behavior is emitted under one particular stimulus through classical conditioning, the same response can take place with a new or different stimulus. In this case, the Deaf-Blind child would randomly respond to his name being stated. Sometimes he paid attention, as with good hearing, while at other times he would not respond to his own name.

The case involved a thirteen year old Caucasian male. His Rubella condition involved an apparent severe hearing loss. The hearing loss was never confirmed and there was a nagging feeling the child could hear and would respond if so inclined. Hence, part of the problem was recognizing what stimulus caused him to be "so inclined." Though the child was usually oblivious to any noise or auditory intrusion upon his state of mind, there were points when he seemed to "click" in and yield potential for human interaction.

It was felt that a classical conditioning paradigm could be used in an effort to increase his attentive responses to the verbal auditory cue of his name. In this experimental setting the subject was arranged with his back to the experimenter teacher. At two second intervals, the child was tapped on the shoulder (stimulus) and the invariable response was a turning of the head toward the experimenter. Upon the desired response, a primary reinforcer was given. The original stimulus was then paired with the verbalization of his name (new stimulus) until a 100% response rate was established. During this classical conditioning phase, the stimulus was given every 2 seconds and reinforcement was applied on a variable ratio schedule. Again using a variable ratio schedule, the shoulder taping was systematically removed. The conditioning paradigm would have it that given the conditioning of one stimulus repeatedly paired with the new stimulus, eventually the second stimulus could elicit the response originally attached to the first. The results indicated this subject generally increased his original response rate to auditory stimulus over a baseline taken prior to the institution of the procedure. However, the increase in response rate had not been worth the time and effort that had gone into the attempt to get this child to respond. Though

other variables interrupted treatment, i.e., end of school year, efforts were essentially abandoned. Side effects included the willingness of staff to explore other explanations as to this child's apparent deviations. The continued question of "Is he really deaf?" was reviewed. Could brain dysfunction cause such apparent changes of "on and off?" What about autistic-like qualities? Though the experimental situation was abandoned it was believed that increase in response rate would have occured in a more highly structured experimental situation. However, there was also expressed the notion that the Deaf-Blind child has the right to more than a highly controlled experimental situation.

## III. A CASE OF OPERANT CONDITIONING

As the strength of the stimulus is important in classical conditioning, the strength of the response is important to operant conditioning. Skenner (1961) termed the response in the conditioning paradigm an "operant." In this, he found the response actually operating or influencing the subject's environment. In manipulating the response through reinforcement, he observed that control could be had over the strength of the response. A basic finding of operant conditioning is that when a response is followed by a reward or reinforcement, the frequency and probability of its reoccurance increases.

The strength of a response becomes combined with the strength of additional responses until complicated behavioral clusters are established. The shaping of behaviors is important in the use of operant conditioning. Equally important is the sequencing and patterning of reinforcers. Initial behavioral shaping through operant technique often involves the use of primary reinforcers. Patterson and Gullion (1968) have helped in a very practical way to bring the importance of social reinforcement to general public. Operant conditioning acts upon the response of an organism. When influence is established, a progression ensues creating conditioned changes throughout a planned network of behaviors. Perhaps operant conditioning is the most used form of learning since its consequences are quite naturally a product of human interaction and patterning.

This case example involved a nine year old Caucasian male. He was a Rubella child with severe hearing and sight loss. Immediate concern related to extensive self-mutilating and repititious behaviors. The child would hit himself excessively on the legs. The baseline of hits averaged 17 hits per minute. His social interaction was poor and he displayed autistic-like behavior. When not slapping himself, "flicking" was his second favorite sport. It is felt that he had fair intellectual capacity but easily tuned himself out and at times became quite regressive.

At the time of initial observation and formulation of a treatment plan, it was discovered that the one way he gained attention was to harm himself. Self-mutilative behavior would typically cause a responsible party such as an aide or a teacher to interfere with his behavior, thus inadvertently reinforcing the undesired behavior. The treatment plan was to systematically reverse the contingencies so that when the child showed signs of more appropriate behavior, he would be reinforced. Initially, m & m's were used and then rapidly replaced with social reinforcement. The results were that the harmful behavior dropped out significantly and more appropriate social behavior increased. In this case, the leg slapping was not extinguished completely, but significantly decreased.

Progress regarding this case was rather slow, but steady changes were made in this child's pattern of behavior. It must be kept in mind that systematic observation and treatment programing is needed not only for research purposes, but also for reinforcement of staff. The process of altering well conditioned and very strong self reinforcing behavior of the Deaf-Blind child is difficult at best. The importance of adequate design and data collection cannot be overlooked even in the most simple of cases.

## IV. A CASE OF EXPERIMENTAL EXTINCTION

Learning theory holds that if a response is not reinforced, the strength of that reponse will decrease and extinction of the response is said to have occurred. Extinction can take place in other ways but have not been readily applicable in the residential setting. Many behaviors can be eliminated simply by withholding either the positive or negative reinforcers. One involved with the Deaf-Blind child can never forget that even negative reinforcement is better than no reinforcement at all. In essence, extinction removes the reinforcing stimulus. Unfortunately, when working with the Deaf-Blind child, the strong control of variables is not likely. However, the use of a well designed "Time Out" room is about as close as one can get. "Time Out" goes beyond simply ignoring the behavior being emitted and produces a consequence wherein the possibility of accidental reinforcement of a particular behavior is reduced to practically zero.

This particular case involves a six year old Caucasian male who suffered several difficulties associated with congenital Rubella. He was deaf with only limited sight in one eye. Since he was bright, he generated a considerable amount of social interaction. Much of the behavior was considered bothersome and negative. He would present in a very noncompliant way and would provoke heighthened levels of interaction. Show downs with the teaching and dormitory

staff usually resulted in temper tantrums which were usually well timed and very disruptive.

The initial treatment schedule involved the systematic avoidance of negative controlling behavior. Initially, an authoritative directive was given twice and if limited aggressive, destructive, or self-harmful events were taking place, this behavior was ignored. Further steps were taken during times in which his lack of control resulted in harm either to himself, to others, or involving total disruption of the educational setting. At this point, he was removed to the "Time Out" room in as bland a manner as possible. He was then observed through a one way mirror until undesireable behavior diminished. At that point, he was removed and again confronted with the task demand. The data consistently showed a decrease in his undesireable behaviors. In this case, the intervention was considered successful.

## V. A CASE OF RE-PARENTING (TRANSACTIONAL ANALYSIS)

Re-parenting is an increasingly popular transactional analysis technique. It involves the systematic regression of the individual through developmental stages that have been missed or integrated in a poor fashion. The technique is gaining popularity, especially with adults, but little research has been done regarding children. Essentially, the theory follows the thinking that development is sequential; therefore, a step missed in social, psychological, as well as other aspects of development will have consequences upon future development. The re-parenting thesis holds that it is possible to go back and pick up a missing point in development. The technique involves a systematic regressive handling of the child. It involves holding as if the subject were a baby--feeding with a bottle and allowing that stage to remain until the child makes a conscious or unconscious decision to behave in a more mature fashion. This decision is made possible by circumscribed parental tasks at each developmental level. During the progressive stages of treatment, one can observe classical developmental and motor stages. Regression to the Babinski's reflex, infantile hand grasp and preference for crawling rather than walking is clearly observed.

In this attempt the subject was a nine year old Deaf Blind child who had been rejected by his mother while he was an infant, was raised by his father and later by a stepmother. The second marriage brought an intense and warm interest in the child's development and welfare. In this the family has spent solid energies in helping in the child's development over the past few years. The child had

many regressive episodes and his life in the institution was usually difficult at best. Behavioral difficulties always expanded during regressive episodes and were marked by considerable increase in self-stimulating behaviors, soiling and spreading of his feces were among the more unpleasant symptoms.

The treatment plan for this boy called for a regressive holding three times a day. During this time he was bottle fed and treated very much like a baby for a 45 minute period. Also, he was played with, cuddled, and given a teething ring during these early stages. This form of therapy was continued for approximately two months. The holding was done by a teacher under the supervision of a trained clinical fellow in Transactional Analysis.

The results involved such things as being more "responsive." He was also more independent and more social in his interaction with adults and peers. His behavior changed from withdrawal to climbing into one's lap and also hugging adults. It was noted he began making sucking and other pre-articulation sounds typical of a young baby. He moved from the bottle to baby food. He spontaneously began crawling in his play versus sitting. He then moved to standing and holding a bottle by himself and playing with the bottle like a young child. He progressed then to putting on his own shoes and acting more age appropriate, following the regressive encounter. It was noted early in the treatment that he would "gurgle" and then stop, blow bubbles, and appear to be functioning much like a small child during and after the experimental therapy session. He very much enjoyed messy play and this was seen as an adaptive alternative for feces smearing. As time went on, the child became more interesting in feeding and drinking unaided. He lost interest in the baby food and started eating at a more appropriate age level. Further work included exploring, participating in more structured games and tasks and playing with toys which were more chronologically and socially appropriate. It was interesting that during the course of treatment, he maintained a clear aversion for the face of the teacher. He refused to explore the mouth and face area of the holding person as is often done by a small baby. The results did show some increase in terms of reduction in the strong regressive signs as were noted. He appeared to be much more with himself and ready to learn, explore, and experiment. The therapy was dropped after about six weeks because of difficulties surrounding the availability of the consultant to direct and supervise the technique. In general, it is felt that the continuation of the technique would have been helpful for the child and further exploration with this technique is warranted.

## VI. A CASE OF Z-PROCESS THERAPY

Robert W. Zazlow, Ph. D, a psychologist at San Jose State University, developed Z-Process Therapy out of his work with autistic children (Berger, 1969). The therapeutic modality evolved out of an integration between developmental, psychoanalytic, and learning theories. "Rage reduction" or Z-Process Therapy comprises several unique features. Primary is the theory of attachment wherein Zazlow maintains that (nonorganic) deviant behaviors, psychopathology, and some developmental and learning deviations are a result of incomplete attachment of the emerging human infant with the primary love object. Incomplete attachment is associated with psychological resistance and rage. Rage and resistance can either facilitate or impair attachment. Z-Process Therapy was developed out of a theory and treatment of autism where strengthening of human attachment and over coming resistance to attachment i s paramount. Another unique feature of Z-Process Therapy is that the technique imposes control over therapeutic encounter. This is realized either in modified ways by holding the hand or head and requesting eye contact. Formal Z-Process Therapy involves holding and maintaining physical restraint and control over the subject. The process involves verbal and nonverbal variables which come under the control of the therapist rather than the subject. Tactile stimulation is applied to increase motivation and produce heighthened resistances and the ensuing anger and rage. Simple and basic issues are presented and dealt with while complying responses are socially and tactically reinforced. This forced compliance model involves mild punishment with strong positive reinforcement to shape emerging and more appropriate behaviors. It also relies upon heighthened arousal states and benefits derived during the recovery period to lock in more appropriate or desired behaviors. It is during this state of more positive "equilibrium" that more appropriate behaviors emerge spontaneously.

The ring of Z-Process Therapy reminds one of Skinner's (1938) work with mild punishment where he first demonstrated a temporary decline in the frequency of behavior following the punishment. Lovaas, Schaeffer, and Simmons (1965) applied this finding to the treatment of autistic children. These subjects were punished (shock) until they sought human contact. The punishment ceased upon contact and reinforcement was administered. Though Z-Process Therapy sounds similar, a far more human procedure is actually in effect. In this, the aim is always appropriate

behavior being strongly conditioned through social reinforcement, praise, and strong feelings of affection.

In the Colorado Program, one concern has related to the possession of control in the therapeutic/education setting and control of extraneous variables. This has become more pronounced as primary developmental sensory motor levels have become viewed as essential in one's understanding, treatment, and education of the Deaf-Blind child. The progress of isolating clinically developmental intricacies and dealing effectively with those involved stages has been a broad and general goal. Without efficient control, the chances of such intervention is limited. Developmental areas of pre-articulation, language comprehension, attention span, etc., are particularly relevant with the Deaf-Blind child and crucial to his development. Since many of the techniques described above were not sufficient or practical to control many important clinical variables, Z-Process Therapy was attempted with a control issue in mind.

On a practical basis, Z-Therapy focuses upon the subject's complying to the task demand as designed by the therapist. When a complying response is made, it is highly reinforced. Therapeutic issues involved such things as the control of eye rolling, of preverbal motoric responses, and the emitting of pre-articulation sounds, etc. Therapeutic issues moved from sensory motor levels to emotional levels involving complex human interaction and intellectual tasks of building on to an education objective, etc.

Z-Process Therapy was begun with a ten year old Deaf and Blind child who was noted for her extreme resistance. She was recognized as being a very bright child who had some limited hearing, poor sight, some speech, but few compliant behaviors. Frequently this child would not respond to any social interaction. However, there were times when she was "on" and she presented in a somewhat appropriate but negative manner. After being in the Deaf-Blind Program for three years, she was transferred to the Blind School where she was viewed by the teacher as being among the most academically capable in the class. However again, the resistance and noncompliant responses to the task demand made her functionally operate on a much lower level than the other children. Behavioral problems in this girl were so great that a full time aide was assigned to the class room setting for one full year. The child was treated with her mother and father acting as adjunct therapists for approximately three months. It is noted that Z-Process Therapy always involves the parents or parental surrogates of the subject as great changes take place within the total lifespace and familial interactions. The results of this trial

with Z-Process Therapy were clearly positive and showed marked improvements in many areas. Striking changes were noted especially in the decrease in negative noncompliant responses. Social interaction improved significantly and the child became far more consistently positive. Academically she showed a new willingness to deal with more difficult tasks and to not be frustrated by the need to expand her cognitive processes. Though the above is positive, the delight of the parents has been clearly felt throughout the school setting. Though the treatment reflects a certain amount of mild punishment, this is a very minor issue compared to the total positive outcome.

## CONCLUSION

In conclusion, the Colorado School for the Deaf and Blind and the Deaf-Blind Program has used a diversity of therapeutic techniques within the area of dealing with the Deaf-Blind child. There have been many failures and many disappointments as well as many positive and hopeful outcomes. In this particular setting, a treatment team now has been devised which takes the pressure off classroom teachers who were previously asked to perform "therapeutic tasks." With this added staff has come a stronger emphasis upon keeping records as well as a research orientation. Evolving out of the application of psychological principles to the Deaf-Blind child has come the focusing upon developmental sequencing, especially in the pre-verbal and early cognitive levels of development. Techniques of treatment in education involving the prediction and control of the Deaf-Blind child's behavior and development must be integrated into a consistent and theoretical whole. The multi-system problem must be approached with a variety of interventions which not only produce change but also educate and stimulate those working with the Deaf-Blind child. To date, a comprehensive educational treatment orientation of the Deaf-Blind child is incomplete at best. However, there is an increasing hope that care takers of the Deaf-Blind child will eventually reach more definitive and efficient psychoeducational techniques.

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# THE TEACHERS ROLE IN FAMILY PROCESS

by
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A paper presented at the Midwest Regional Center New Staff Orientation Workshop.
October 15, 1974

My assignment for today is to discuss the stress and anxieties a deaf-blind child often places upon families and ways in which teachers can help these families. In addition I want to spend a little time discussing how families' problems can be seen by program staff members.

I understand that most of you have worked with deaf-blind children and are not entirely new to the field. In this case you have probably had a number of contacts with families some have probably been pleasant while others may have been difficult for you and the parents. I'm sure that you are familiar with many of the problems and have seen many exhitibed in your programs but I am not sure if you know some of the factors which contribute to making parents seem anxious and sometimes uncooperative. I have brought a tape of a parent who describes her experiences much better than I could describe them.

This mother indicates the importance and need for us to extend ourselves to assist parents. There is some disagreement as to the source from which this help should originate.

Some professionals contend that there is a distinction between educating a child and providing services to the family and child. The distinction seems to center around the concept of the social worker's and teacher's role. Is the social worker limited to only working with the family and the teacher limited to working only with the child? Or can the social worker be a part of the teaching team and work with the family and child while teachers work with the family and child?

At best, and with explitives deleted, I feel that this type of dicotomy is naive and could be counter-productive to the maximum progress of children and families. A child is a part of a whole family. In the case of handicapped children, the family must assist in services to the child if the child is to develop to his fullest potential. I am not saying that teachers should be psychotherapists or that counselors should do the educational planning; but, I do believe that we must all work as a team which includes the parents and provide services to the whole family if children are to make the maximum use of the program. This may be scary to some of you who might be feeling unprepared to work with parents and wonder where you will find the time.

Needless to say this could be a time consuming process especially if there is no one on the staff who has this specific responsibility but much of it can be accomplished during your regular activities. A survey of parents in our region indicated that most of these parents felt more comfortable talking to their child's teacher about problems than any other staff member.[1] The parent's deepest relationship is made with the teacher; teaching personnel are the primary persons who share the responsibility for their child. In the parent's viewpoint, teachers are the experts who can be trusted and depended upon.

If you can accept that many parents may choose you for this role of

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1. A PRELIMINARY REPORT ON PARENT OBSERVATIONS AND NEEDS AS THEY RELATE TO PROGRAMS FOR DEAF-BLIND CHILDREN IN THE SOUTH CENTRAL REGION Carolyn Torrie, ACSW, Consultant in Social Services. A paper presented to the Regional Advisory Board Meeting, June 15, 1973, Dallas, Texas.

parent counselor and friend, I would like to share a few ways in which you might help parents. Many of you may find these suggestions "old hat" and things that you have been doing anyway. That is good, however I'd like you to share some of your experiences or raise questions afterward. There are several aspects about the experiences of families which might be helpful for you to keep in mind.

Not all parents are like the mother in the tape. Their initial feeling of shock, disappointment, despiration, quilt, fear, grief, and anger may vary in intensity. Their period of mourning and depression may vary in duration. Their success in finding services will differ and their patterns of coping will differ. All of them, however, experience some degree of hurt and frustration. Certainly most of them need and want help.

Parents initial feelings are intensitified as they desperately search for an accurate or at least a consistent diagnosis and directions to help and resources. Often what they find are professionals who do not listen to their concerns or who simply tell them that their child is hopeless, wiped out and should just be put away--he is worthless. As you know, many of these hopelessly wiped out children have shown amazing progress once they get to the appropriate program--their parents can too. After encountering these types of responses again and again along with the immense financial drain in their search for help, the parents often become angry with the system, angry with themselves and hostile toward professionals even those who can and want to help them--

people like you.

In addition to their feelings toward the system, the parents may feel so inadequate and overwhelmed that they become depressed and withdraw from the child, other family members and from each other. The lack of response exhibited by many of these children reinforce the parents, particularly the mother's feelings of inadequacy. Many give up and feel helpless and hopeless before they ever find a program.

All of these feelings and experiences may be exhibited in ways that make the program staff members feel that the parents are uncooperative and unwilling to follow through with suggestions for the home. They may complain a lot or be "picky" or they may just want you to do it "all" and seem ungrateful. Any of these descriptions may accurately apply to some parents. But for many parents the search for services has been so draining that they are physically and /or emotionally unable <u>not</u> unwilling to take an active part.

I really believe that you can help the majority, although not all, parents to become active, supportive participants in their child's program. But first, many of them will need support and encouragement from the program staff. These are some ways in which you can reach out to parents.

1. <u>By including the parent or parents on the educational team.</u>

Include them as an equal partner; don't just tell them what you plan to do. Have the parents identify their areas of concern, give them information in a way that they can understand. Involve them in

the assessment of the child (don't send them to the waiting room). Include them on the educational planning. Help them understand their role in carrying the plans out and suggest ways in which other family members can be helpful to the child. Treat them as people who have something worthwhile to contribute to the educational planning and program. Yes, some parents may not be able to come during the day or say they cannot. But, many of them will make the time if they feel that they will have some real input and you want them there. Try it. What's the worst thing that can happen if the parent is included on the team?

2. By really listening to their concerns.

Concerns about themselves as people as well as those about their child. You may hear about family or marital problems, feelings about the child and themselves.

3. Being supportive to parents.

Emphasize positives in their relationship with their child, positives about the home situation. Point out their strengths as people.

4. Assisting parents in making future plans.

Reinforce realistic expectations for their child and use these as a basis for exploring future resources with them and making suggestions for plans.

5. Being familiar with local resources.

Explore agencies in your area which might be of help to the families. Often, caseworkers for the blind are knowledgeable and helpful in this

area. You might explore the counseling and other services of the family agency, local welfare department and mental health clinics. For financial assistance: Lions and Kiwanis groups, Easter Seals, Crippled Children's Society or March of Dimes may be of help. Visiting Nurses Association in some communities offer home services. I would suggest that you contact the social worker or social work department in these agencies for information.

6. Knowing when to refer the family for further help.

Trust your own comfort level to let you know when you are unable to assist the family with a problem. In this case, note their concern and ask them if they would like to discuss the problem further. If so refer them to the social worker on your staff or to another agency. If there is a social worker or caseworker involved with the family from another agency it might be helpful for you to keep in touch with her periodically, again team work is helpful and could save you time. Let the worker know when the family seems to be experiencing problems which you cannot assist. You might then suggest to the family that they discuss these further with their worker. If they are unwilling to do so, you might explore their reasons and give them the names of other agencies.

7. Encouraging the formation of parent groups.

Groups are very helpful to parents. Yes, they do take time and planning. If you do not have a designated staff person to work with parents, I would suggest that you pick out an aggressive parent and

explore the idea of a group. Often an aggressive parent might be interested and will organize the other parents while you serve as a resource person to them. There can be different types of groups including:

PTA type group for staff and parents to discuss concerns and needs in program--fund raising, public relations and awareness.

Parent Education designed to give the parents information and clarify their concerns and questions about medical information, legal information, educational resources and other parent interests.

Parent sharing groups for parents to share their concerns with each other and discuss ways of coping with their child and other problems. These are especially helpful.

Parent Organization which tries to ally with other groups, maybe statewide, for legislation, recognition of need, dissemination of information.

Family Day or Weekend: In residential settings where you often lack regular or any contact with parents, I'd suggest that you consider a family day or periodic family weekends.

These can be helpful to parents, staff and especially the child. Yes, I know you may have tried an open house before and got a poor response. Please try again and consider designing the time so that parents can see and be involved in the children's daily program on a mini scale and allow time for the parents to meet with the teacher individually. During this time, you might ask the parents for input and suggestions. Find out what is the biggest problem when the child comes home or when he used to come home. Try to involve the parent in planning the program as I discussed before. I realize that the distance and irregular contacts will preclude the parents being as involved as in a day program. I think you might find the parents more willing

to take the child home and take him more often if they feel that you are willing to help them with behavior that has been a problem. Personal contact with the parents by phone or home visit following an invitation describing the parent day is often more helpful. This makes it not just another paper to sign from the institution.

Also remember to include houseparents and/or attendants in your planning for the child. This sometimes prevents their feeling resentful and resistive to your suggestions or plans of activities for the evening and weekends. If not, then you may see the child regress during these periods or find yourself in the battle of Education vs Nursing Care. No one wins in such cases and the child really loses the most.

These severely involved children and their families need all of our cooperation and team work to survive, progress, and grow into independent, adequate individuals. Parents must be on this team to help them grow as far as their potentials will allow. I feel that you, the teaching staff, can be and are effective persons in educating deaf-blind children. You can also be as effective in your relationship with the parents.

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# INDIVIDUALIZED FEEDING PROGRAM

by

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A paper presented at the Midwest Regional Center, Teacher's Workshop
Royal Inn, South Bend, Indiana, October 17, 18, 1974

# INDIVIDUALIZED FEEDING PROGRAM

Mary Ann Mariani

I have been asked to speak to you today about feeding. I must admit that I have not worked directly with a child in a year and a half on feeding. However, I can readily identify with the problem feeder since I have worked directly with a variety of children. I have been spit on, my fingers have been bitten, etc. I have shared in the whole emotional spectrum of the feeding situation.

What I want to do now is to give you my objectives for this morning and if I go off course I want you to halt me.

## OBJECTIVES

1. You will be aware of the different behaviors that are involved in the feeding process.

2. You will be able to demonstrate the use of one technique for observing feeding.

3. You will be aware of some specific techniques for feeding problems and some adaptive materials that are available.

4. You will be able to plan an individual feeding program for a child.

That is a lot to accomplish in one hour, but not impossible. First I will talk to you about the behaviors that are involved in the feeding process.

In order to observe feeding behavior we must first observe all the behaviors of the child. We are going to look at the child's social,

emotional, physical and mental behaviors and determine the child's level of functioning in each area.

Why must we observe all of the child's behaviors? Let us examine what behaviors are occuring during feeding. A child picks up a spoon, puts it in the bowl, scoops, lifts the spoon to his mouth puts the food in his mouth, chews the food, and then swallows. How many systems of behavior do we see in this feeding activity? First, there is physical behavior-a child uses his visual and motor systems to find the spoon and pick it up and put it in the bowl. There is social behavior in eating neatly, slowly and using a spoon. There is mental behavior in the routine and sequence of eating and the discrimination of types of food. There are emotional behaviors in the enjoyment or non-enjoyment of eating. In this activity we see the integration of all the systems of behavior.

If all these behaviors are present in the feeding situation then we need to observe these behaviors to look at where the child is in each of these areas so that we may incorporate appropriate planning into the feeding situation.

Let us look at some specific behavioral areas so we have a guide when we observe the feeding process of a child.

I. Physical

(a) The mouth structure and functioning

1. teeth (occlusion, gums), lip closure, tongue control

2. suck, swallow

(b) Gross motor

1. head control

2. sitting behavior-balance

3. functioning upper extremities

(c) Fine motor

1. grasp and release, wrist rotation

2. eye-hand movements

(d) Vision - attention and eye hand movements

(e) tactile - acceptance to different textures - by fingers & by mouth

(f) Olfactory - acceptance to different smells - likes & dislikes

(g) Gustatory - acceptance to different flavors - likes & dislikes

(h) Auditory - response to auditory clues, (ex. teacher banging on plate is a signal for "time to eat")

II. Mental

(a) Receptive language

How does he respond to gestures, signs, or speech at meal time

(b) Expressive language

Does he gesture, sign, or ask for what he/she wants (ex. how does he ask for more, how do you know he has had enough?)

(c) Memory

1. short term - does he/she remember what you show him - does he imitate?

2. long term - does he/she remember the sequence of feeding from one day to the next?

3. how does he/she relate to past experience in order to solve new problems?

4. does he/she have concepts about food - where it comes from, how it is made?

III. Social

(a) interpersonal - how does he/she interact with the adult feeding him ?

(b) adaptive - how does he/she interact with the environment?

(c) acculturation - how does he/she meet society's rules?(ex. correct table manners)

IV. Emotional

(a) intrapersonal & interpersonal - is he/she aware that he/she is unique and separate from others and that he needs others to understan him/her self and to meet his/her unique needs?

how does he/she express feelings, needs, desires, fear, anger, rage ?

Now - please look at your Observation Planning Form. This is just one system for observing the specific areas I spoke of previously to determine what further evaluations or observations are needed and the tentative goals for the child based on this observation and possible teaching strategies that will lead to the accomplishment of these goals.

The observer should fill out a form for each specific behavior. For example if you are observing Physical Behavior and the specific functioning of the mouth structures this would be listed on the top of the Form (ex. Physical Behavior - mouth structures and functioning).

All observations regarding mouth structures and functions should be liste in the first column titled Observations. The second column is entitled Further Observation and Evaluation Needed. The observer enters any further evaluations (dental, speech therapy) that are necessary.

While you are observing you may think of a Tentative Goal for the child and Tentative Strategies. A tentative goal may be that Johnny will swallow junior foods without prompting by December 30. Your tentative strategies woul include the specific activities that will bring about the accomplishment of a specific goal.

These observations are then used to develop the individual program plan which I will discuss after we watch the video tape.

Let's divide into groups now and each observe a behavior area (Physical, Social, Emotional, Mental) and write these behaviors on the form.

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Video tape of 3 problem feeders.

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Please refer to the Workshop Proceedings of the Problem Feeder for specific techniques for sucking, swallowing, chewing and tongue thrusting.

There are also adaptive spoons, straws and chairs for working on specific behaviors contained in the proceedings which I will not go into now.

What we will do now is to use the individual program plans to simulate planning for one of the children you viewed on the videotapes.

There are several things to keep in mind when planning an Individual Program Plan. They are the following:

1. Plan the Individual Program Plan with all those who will be feeding the child (this includes houseparents, aides and parents). This will diminish the possibility of problems of inconsistency later on.

2. Once a plan has been decided upon - document daily progress in some quantifiable manner that will be used by all. This will elminate decisions being made solely on subjective data.

3. Schedule a time whether it be two weeks, a month or longer from your starting point when all those involved will re-evaluate the child again.

Now if you will please refer to the handout entitled Individual Program Plan.

Let us look at the first column. A long term goal is entered in behavioral terms and can be as long as you want it to be. It can be three months or a year depending on the rate of progress of the child involved. Short term goals are listed for each long term goal. A short term goal can either be

daily, weekly, or monthly. They are the steps leading to the long term goals.

We have found that it is easier to develop all the long term goals and then the short term goals that lead up to each long term goal before planning the strategies and procedures that are the means of achieving these goals. In this way the "planners" can incorporate several goals into one activity - thus integrating a variety of behaviors and planning for the total child.

In the Strategies - Procedures column you would list how you were going to accomplish the short term goals, where you were going to do it, i.e. the whole environmental set-up, and how you were going to do it. Under the heading Materials you would include the equipment you would need. Under the heading Evaluation tell exactly how you would evaluate each short term goal. You might want to develop a chart or a check list to document the progress of each short term goal.

The Future Strategies column is perhaps the most important. This is your mechanism for looking back at what you have done and deciding where you should go from where you are.

Now let us take the observations we have made of these children and simu an Individual Program Plan. Let us concentrate mostly on long term and shor term goals and plan these in small groups.

* * * Group Planning and Reporting * * *

As we have observed today, many behaviors are involved in feeding. We need to observe and plan for each behavior that influences the feeding progr By accurate observation of behaviors we will be able to systematically plan, implement and evaluate a feeding program that will lead to an appropriate go for each child.

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All papers listed above are available from the South Central Regional Center, Callier Center for Communication Disorders, 1966 Inwood Road, Dallas, Texas 75235.

Child: B
Activity observed: Eating, Drinking

OBSERVATION-PLANNING FORM

| Observations | Further observation & evaluation needed | Tentative Goals | Tentative Strategies |
|---|---|---|---|
| Self-feeding sitting in chair at table. | why is the bib under the plate? | | |
| observed: cleft lig | are the feet touching the floor? | | |
| eating off bib | what is the other hand doing? | | |
| scooping | complete consultation & discussion with cleft palate team or others | | |
| let food fall out of mouth | | | |
| handedness: right in eating | | | |
| rate of eating: slow, even | teeth, lips, swallowing, breathing, etc. | | |
| no lip closure | | | |
| tape plate in middle of eating | does he know what the tapping mean? | | |
| hand-wrist bent, spoon crooked (crooked little finger!) | | | |
| elbow in plate | was he aware his elbow was in plate? | | |
| Drinking: noticed head - opening & closing mouth with tongue in fixed position; bird-like movement. | what is the movement about? | | |
| Feeding with Carmella on floor. | | | |
| Head positioning, head back, arms in high guard | can he right his head in space? | | |
| Sternocleidomastoideus (neck muscle) strained | | | |



OBSERVATION-PLANNING FORM

OBSERVATION-PLANNING FORM

| Observations | Further observation & evaluation needed | Tentative Goals | Tentative Strategies |
|---|---|---|---|
| opening & closing (bird movement) with tongue but doesn't sound like sucking or a seal is there | | | |
| wiping face, head back no effort on D's part to be involved; cries | subjective observation; crying & faces have dramatic affect. | | |

# A SEQUENTIAL APPROACH TO DEVELOPING THE USE OF RESIDUAL VISION IN DEAF-BLIND CHILDREN

by

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Dallas Texas

A paper presented at the Midwest Regional Center, Teacher's Workshop
Royal Inn, South Bend, Indiana, October 17, 18, 1974

A common concern of teachers of deaf-blind children is, "Just how much does he see?" Or, "How can I help him to use his residual vision?" So we send the child to the ophthamologist to try to get answers to these questions, and we get back an eye report that reads something like this:

20/200 O.D.
Bilateral cataracts, removed
Microthalmia
Strabismus
Nystagmus, etc, etc.

Or, even more disheartening, the report says, "Untestable."

Such information does not answer our questions very well, does it? It may tell us a little about how much the child sees, but it certainly does not tell us how to help him use his limited vision. And we are right back where we started from.

The subject of my talk today is "A Sequential Approach to Developing the Use of Low Vision in Deaf-Blind Children." In simpler terms, I'm going to try to help you answer these questions: "How much does the child see? And how can you help him use the residual vision he does have?"

To do this, I will divide my discussion into five different topics.

1) Common eye problems of deaf-blind children, particularly rubella children
2) Observation and assessment techniques
3) Planning a visual stimulation program for a child
4) Documentation
5) Some materials for and resources on vision stimulation

Before discussing these topics, I feel it is necessary to define a few terms as they relate to this discussion. The first of these is visual acuity. Visual acuity relates to how well the child is able to see; how much vision he actually has. We will be talking about his distance visual acuity - how much vision he has to see things at a distance; and near vision acuity - how much vision he has to see things within arm's length.

The other term is visual functioning. Visual functioning relates to how well the child is able to use the vision he has to perform tasks.

This is the point in a discussion of vision that gets difficult to understand because visual acuity does not necessarily reflect visual functioning. A child may have fairly good visual acuity but poor visual functioning or vice versa. The reason for this - visual functioning is a learned process. The child must learn to use his vision. In this discussion, we will primarily be concerned with developing visual functioning.

## COMMON EYE PROBLEMS OF DEAF-BLIND CHILDREN

One common eye defect found in rubella children is rubella retinopathy which is characterized by widespread pigment deposits on the retina. These deposits have been noted to have little or no effect on visual acuity, adaptation to darkness, color vision or visual field. However, others have observed that rubella children often respond better to particular colors which havebeen interpreted as the colors they see or see better than other colors. It is not certain whether this response is due to rubella retinopathy or not.

Another effect of retinopathy is blank spots on the retina which result in vision in only some areas of the eye. Often times we see these children turning their heads in unusual positions to look at something. This may be due to these blank spots; the child must turn his head in this way in order to see from the area of his eye in which he has vision.

This turning of the head to see might also be due to strabismus; a failure of both eyes to direct their gaze at an object simultaneously. As a result the child might have double vision in looking at the object and have to turn his head either to block out the image from one eye or to focus on the object.

Another very common eye problem found in deaf-blind children is congenital cataracts, which may be unilateral or bilateral. A cataract is an opacity of the crystalline lens of the eye. They are usually surgically removed, and the child wears cataract glasses or contact lenses. Incidentally, a word about cataract glasses; these glasses are primarily for distance vision. The child should have bifocals so that he will be able to use both his distance and near vision.

An eye problem sometimes found is glaucoma, which may be congenital or secondary following an operation to remove cataracts. Glaucoma is an increase in pressure within the eye because the aqueous fluid does not escape. This pressure kills retinal cells and optic nerve fibers. All of your children should be checked for glaucoma regularly. If you notice the child rubbing or pressing in on his eyes a lot, have him checked immediately by the opthamologist.

Nystagmus, which is rapid, involuntary movement of the eyeball is often present in deaf-blind children. Although the eyes are constantly moving, the child does perceive objects as being stationary.

The last eye problem we will discuss is retinitis pigmentosa which is a progressive destruction of retinal cells starting at the periphery and moving inward, resulting first in night blindness, then tunnel vision and may or may not result in total blindness in adulthood.

The other four topics will be discussed under the heading:

Individual Program Plan

Because each deaf-blind child is very different in his problems, abilities, and behavior, it is imperative to develop an individual program plan for each child that is designed to meet his individual needs. Such a plan includes initial observation and assessment of the child's levels of functioning, the development of long and short term goals for the child from which sequenced activities and materials are designed, and methods of documentation to record the progress the child makes in reaching the long and short term goals. Although the discussion here will primarily be concerned with activities for the development of visual functioning, it is important in planning activities to incorporate several goals into each activity. One activity, for example, might include a visual goal, a motor goal, and a language goal, etc. In this way, the child is given an integrated program and does not simply develop splinter skills. The materials used should be objects found in the child's day-to-day surroundings so that he gains experience with these objects and develops an awareness and understanding of his environment.

The first step in developing an individual program plan is

Observation and Assessment

Included here are formal assessment tools such as Barraga's Visual Efficiency Scale (for higher-functioning children), the Callier-Azusa Scale or other tools to assess visual functioning. Since most formal assessment tools are too high level for many deaf-blind children, it is also necessary for the teacher to design activities to informally observe and assess the child's visual functioning.

The first thing to look for is the child's ability to attend to light. One way to assess this would be with a penlight or dripless candle. Flash the light, (or hold the candle) about 12" from the child's face, and record if he responds by looking at, startling, becoming excited, increasing or decreasing activities, etc.

To assess the child's peripheral vision, stand behind the child, move the light around the side of his head, and record if he turns his head or eyes to look at the light. (You will need someone in front of child to help you observe this.)

You can check for blank spots in the visual field by using 2 penlights. Again while sitting in front of the child, blink 1 light on and off at a distance of 12-18". Hold the other light stationary in various positions (like the numbers on a clock). When the child is attending to the blinking light, turn it off and at the same time; turn on the other light. Record if the child immediately shifts attention to the 2nd light.

The next thing to look for is the child's ability to track moving objects. Again using the light, slowly move it in front of the child first horizontally, then vertically, then obliquely, and finally in a circle. Record if he follows the light in each of these positions with his eyes alone or by moving his whole head. (Moving just the eyes is a higher level skill).

You also want to check for convergence-at what point do the eyes converge when an object is moved toward the child. Using the penlight, start at about 18" from the child and slowly move the light toward the bridge of his nose to a distance of about 4". Record whether he is able to follow the light smoothly, if one eye turns out or in before the 4" distance or if he's uncomfortable seeing that close and either turns his head or pushes the object away.

Dr. Efron of the University of South Carolina has noted that many children prefer colored light to white light. Try putting strips of different colored cellophane over the light when doing these activities Some children may show a preference to a certain color which can be used in materials to stimulate his vision.

Also, most children will respond to illuminated objects (such as lights and candles) before responding to non-illuminated objects. When you have tried each activity with the light, you should also do them with small brightly colored objects, or objects that the child particularly likes. Objects particularly good in assessing tracking ability are balloons, children's bubbles, and candy on a string.

The child's ability to scan visually can be assessed by placing two or three objects in front of him (particularly objects that he likes) and recording his ability to shift attention from one object to another.

To check for eye-hand coordination and figure-ground discrimination, place several objects of different sizes and colors on the floor (which should be of a contrasting color so that the objects can be easily seen) and have the child pick them up. Candy and other food are particularly good for this activity. Record how easily he picks up the objects, what size they must be for him to see them, and how close he must be to see them.

Other activities to check for eye-hand coordination involve giving the child different objects, one at a time, to play with for a short time. Then take the object and hold it in front of the child and record if he reaches for it, ahd how accurate his aim is. To check for eye-foot coordination, place several pieces of brightly colored paper on the floor as a path and have the child walk from one paper to the next.

Activities should also be included to assess higher perceptual skills such as the ability to match identical objects (using objects familiar to the child and found in his day-to-day environment). Also, the ability to discriminate and match objects of similar shapes, then similar sizes, and similar color. Materials useful here are formboards, wooden or sponge shapes. Activities to assess the ability to match objects to pictures of the objects and then picture to picture should also be included.

The materials and methods in the above activities are merely suggestions and can be modified and expanded for an individual child.

The teacher should keep a record of the child's responses in each of the assessment activities and of other observations he makes while presenting the activities. Included here would be observations of the eyes themselves - the general condition (is either eye infected; does the pupil constrict when light is presented; is there considerable nystagmus, etc.); if the child uses one eye more than the other or both eyes simultaneously to gaze at an object; if the child continually moves his head to see from one part of his eye. Other observations to record are the child's dependency on tactile information, the distance at which the child is able to see objects, the size objects must be for the child to see them, and his responses to color.

If you still have questions about the child's vision after your observations and assessment, it might be a good idea to see the opthalmologis again at this point. Tell him your observations and ask him questions. This will certainly be more helpful to you than reading an eye report!

## PLANNING A VISUAL STIMULATION PROGRAM

Once the initial observation and assessment is complete, and you have determined the child's level of functioning, you can use this information to plan a visual stimulation program for the child, developing long and short term goals, activities, materials, and methods of collecting formative and summative data on each child. Many of the same activities and materials used in the initial evaluation can be used and elaborated on in the visual stimulation program. It is important to use several different methods and materials since different children will be stimulated by different things, and also to make sure learning is generalized.

The components of the visual stimulation program are goals and activities to develop:

I. Visual Skills

A. Attention

B. Localization

C. Tracking

D. Scanning

E. Figure-ground discrimination

II. Motor skills involving Vision

A. Body movement: running, jumping, hopping, crossing the midline, etc.

B. Eye-hand Coordination

1. Gross motor: previous suggestions plus ball and bean bag activities such as throwing, catching, bouncing, hitting targets, etc.

2. Fine motor: cutting, pasting, painting, coloring, etc.

C. Eye-foot coordination: previous suggestions plus walking forward, sideward, backward on a line, jumping over objects, kick ball.

III. Visual skills and mobility: in the classroom, building, outside, home, etc.

IV. Body image: identification of body partns, laterality, co-active movement,etc.

V. Visual Perception

A. Discrimination of objects, shapes, sizes, colors, and pictures

B. Sorting and classification

C. Sequencing

VI. Vision and other areas of the child's program

The child should be encouraged to use his vision in performing other activities. For example, if the child is learning to feed himself, encourage him to use his vision in finding the spoon or food on the plate, etc. If he is learning to dress himself encourage him to use his vision to find his clothes and in putting them on.

## DOCUMENTATION

As previously mentioned, a system of collecting formative and summative evaluation data should be incorporated into the program. This documentation may be in the form of developmental scales, behavioral charts, anecdotal reocrds, videotaping, or other systematic approaches to collecting data. The methods of documentation used are up to the discretion of the teacher; the important thing is to have some system of recording the child's progress, and evaluating goals and objectives in order to know where you have been and where you are going!

## MATERIALS AND RESOURCES ON VISION STIMULATION


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# WHEN THE SENSORY HANDICAPPED CHILD HAS CEREBRAL PALSY

by

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A paper presented at the Midwest Regional Center's Teacher Workshop, Royal Inn, South Bend, Indiana
October 16, 1975

## WHEN THE SENSORY HANDICAPPED CHILD HAS CEREBRAL PALSY

### Part I. Physical Management

#### Characteristics of Motor Problems

Physical therapists working with handicapped children utilize a variety of approaches based on developmental principles. With these techniques it is possible to facilitate active responses in very young or retarded children. Specific techniques of physical handling and positioning can help reduce the abnormal tone and postural patterns of the child with cerebral palsy, and facilitate the normal righting, protective, and equilibrium reactions which are the underlying building blocks of normal motor development. Therapy goals aim at helping the child to reach his best motor potential, preventing or minimizing deformities, and assisting the child to explore and exploit his environment, thus contributing to his total development. With early therapy begun under one year it is thought the child has the best chance to achieve his potential, and early identification and treatment are being strongly emphasized. As the child with cerebral palsy grows, however, all except the midly handicapped have an ongoing battle with deformity even as new motor skills are acquired. Eventually the acquisition of motor skills plateaus, but the battle with deformity can continue all through life.

When the child receives physical therapy this may be of little value if the management of the child in his daily life does not support the therapy program. It is important to teach the parents, caretakers and teachers ways to handle and position him in everyday care and play. He can be treated as he is carried, bathed, dressed, fed and in play. This can be planned for times the child is not receiving direct attention also,

through correct and varied positioning, an important consideration in a busy classroom. Parents or ward attendents taught therapeutic handling need not feel stressed by demanding exercise routines added to an already time-consuming job caring for a handicapped child. Carry-over of management to the school situation is also important, and for many children the school situation will be the most important. Therapy cannot continue forever in the life of a handicapped child, but management must.

Typical Deformities and their causes

Let us review some of the typical deformities and their causes in cerebral palsied children before we describe some management principles. Deformities in cerebral palsy are often described in terms of where...why and how are important if one is to prevent or counteract them. As you know, children with cerebral palsy have abnormal muscle tone: too stiff to allow free motion; too floppy to support upright posture; sometimes both manifested in the same child. They also have primitive or abnormal movement patterns and postures which interfere with the normal postural reactions we would like to see developing.

Fig.1

One of the commonest deformities is that of tight hip adductor muscles due t extensor spasm or scissoring. This can also lead to hip subluxation or dislocat (Fig.1)

The abnormal tonic reflex patterns such as the asymmetric tonic neck reflex in this child can contribute to a trunk curve even when the child is lying. (Fig. 2)

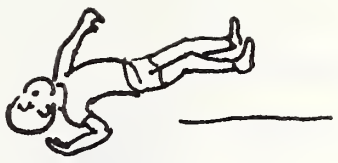

Fig. 2

When placed in upright, over time this asymmetry can contribute to the development of scoliosis and windswept hips, with special danger of dislocation of the hip on the more flexed side (Fig. 3)

Fig. 3

Muscles are organized in patterns, and in cerebral palsy the limbs tend to flex at all joints. (Fig. 4)

Fig. 4

If the ankles are flexed to let t
heels down, knee and hip flexion
be a problem. (Fig. 5)

Fig. 5

The same child in prone may show total extension of hips, knees, and ankles. This is an example of a situation where a good functional pattern that a therapist may be stressing, extension of neck and trunk, can lead to increased abnormal extension of the legs because of what is called a "cephalocaudal chain reaction."
Special techniques are needed to avoid making the child worse as one tries to make him better, such as spreading the legs in abduction, or bending the ankles. (Fig. 6)

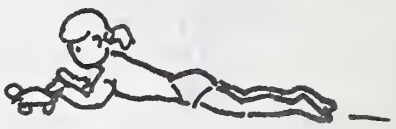

Fig. 6

Fig. 7

Exaggerated positive supporting reactions add to stiff total extension when the child is supported in standing, especially when he is lowered to stand. Again we are in danger of making him worse. This reaction is responsible for abnormal tone sometimes not being noticed until a child is pulling up and spending time on his feet. (Fig. 7)

Fig. 8

The spastic child's sitting leads to several deformity problems. He is thrown back by his abnormal extension of his hips and legs, sits on his lower spine, and must flex his upper spine to maintain sitting. Tight hamstring muscles on the posterior thighs, and tight hip adductors compound the situation. This is a common contributor to kyphosis deformity later. (Fig. 8)

The child with floppy tone who has insufficient antigravity tone also is in danger of kyphosis deformity over time. (Fig. 9)

Fig. 9

Fig. 10

A less recognized cause of kyphosi is placing a child in a reclined cerebral palsy chair who is able to actively flex head and trunk forward--over time this leads to a flexion or kyphosis deformity.(Fig

A common cause of leg and hip deformities, or internally rotated gait in milder involved children, is going to sit from all-fours back between the legs in what is called "W-sitting." Children use an abnormal reflex to do this and may lack rotation patterns they need to turn to sit with legs in front. (Fig. 11)

Fig. 11

## Therapeutic Handling and Positioning in Daily Care and School

### Washing and Diapering the Child

In daily care such as washing and diapering a chil one can counteract adduction deformity and facilitate the functional reactions needed for the development of rolling.

Spreading extended legs apart, or if this is difficult, spreading them when flexed, as the abductor muscles like to work with the flexors, and the adductors with the extensors.

(Fig. 12 & 13)

Fig. 12

Fig. 13

Turning over can be facilitated by crossing over a leg to stimulate the head and upper body to follow, or by assisting the child at the shoulders so his legs follow.

(Fig. 14 & 15)

Fig. 14

Picking Up the Child

Picking up the child can encourage the forward head control needed for sitting. This can be done every time one picks up the child. When the arms pull back in a nice traction response, and head lag is not too severe, slowly pulling up by the arms may encourage head lift. (Fig. 16) When the child has more troublesome head and trunk extension and arches back, it may help to flex the legs in preparation. (Fig. 17) You can also hold the shoulders forward to control the extension. One may need to come up diagonally at first, eliminating gravity partially. (Fig. 18) Eventually the child may be able to come up in the middle. (Fig. 19) This shoulder grasp may also be appropriate when there is a poor traction response of the arms, to avoid joint trauma or dislocation.

Fig. 15

Fig. 16

Fig. 17

Fig. 18

Fig. 19

Carrying the Child

Carrying the child is necessary - it can also be therapeutic

Fig. 20

A prone carry can stimulate head and trunk extension in prone or work through flexor spasm preparatory to placing a child in prone positioning. (Fig. 21)

When you have a child who stiffly extends or scissors, this method of bending and spreading legs around one not only stretches adductors, but enables better trunk-head balance and participation in the carry. (Fig. 20)

Fig. 21

The flexed chair carry helps control an extended child so he can be placed in a chair with his hips well back in the seat. This is appropriate for a child who stiffens like a board when you try to sit him. (Fig. 22)

Fig. 22

Prone Work and Positioning

Prone work and positioning is often stressed. Commonly this is because it is often a particularly delayed area of development for a delayed,

cerebral palsied, or blind child. It is here that head and trunk and hip extension prepare the child for upright posture against gravity in sitting and standing. As flexor deformities of hips or knees become more of a problem with time, it is also used to counteract flexor deformity.

Fig. 23

Head righting in prone can be facilitated a number of ways. This therapist is using tapping on the forehead. (Fig. 23)

Fig. 24

Work over a prone bolster or ball may stimulate head lifting and trunk-hip extension.

Sometimes arms are flexed and stuck and the child cannot free them forward or erect on them. (Fig. 25) Rather than just pulling them forward, one might facilitate active forward movement by lifting the shoulder and helping the child learn to do it. (Fig. 26) If that doesn't work, push the arm forward rather than pulling it, which might reinforce the flexor spasm. (Fig. 27)

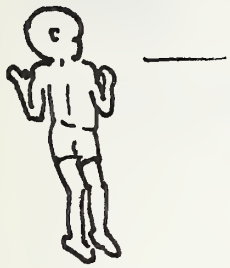

Fig. 25

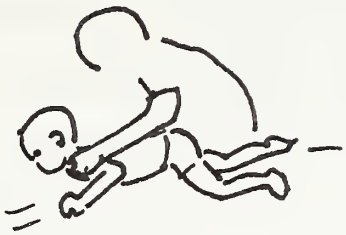

Fig. 26

Fig. 27

The child may be positioned in prone for play - varying time according to his tolerance and ability, such as with a busy box in his crib. Prone playtime can be planned in the nursery school, using a soft round bolster for one child and a wedge which is a backrest pillow for another. (Fig. 28 & 29)

Fig. 28

Fig. 29

Fig. 30

A special cut-out support or wedge with side pieces is useful for a very asymmetric child who rolls over accidently.(Fig.30)

A wedge cushion is often used - notice this is ellow height for this child who commonly extends his arms strongly. Notice his legs have been spread. This is important - use a pillow between if necessary. (Fig. 31)

Fig. 31

A half-tire works in the sand. (Fig. 32)

Fig. 32

It is particularly important for the child in long braces who may sit a lot to get stretched out in prone - this may be done in a free play time in nursery school. Special prone crawl boards of various kinds have been designed to encourage prone positioning and allow mobility.

There is an exception to use of prone positioning - the child in marked hyperextension or opisthotonus in prone. (Fig. 33) He needs flexing - here sternal pressure is applied to help him relax. (Fig. 34) Side-lying may enable him to relax, or a hammock-type chair.

Fig. 33

Fig. 34

Supine Positioning

Supine positioning may need to be reduced for some children with strong extension in supine, and who have more normal tone in other positions. For some relaxation can be obtained by positioning head, legs or both in some flexion. Centering of the head using some type of cut-out cushion may assist more symmetrical postures and help visual coordination. (Fig. 35) Encouragement of reach forward at the midline is desirable in play, and helped by the symmetricl flexed position. (Fig. 36)

Fig. 35

Fig. 36

Assisting the child to play with feet is another midline activity, and important in the development of body perception. (Fig. 37)

Fig. 37

Side-lying

Side-lying may be recommended for play as it may allow more normal tone for some children and enable a child to coordinate eyes and hands at the midline. (Fig. 38) These two children are positioned for play in the classroom.

Fig. 38

Sitting Work and Chairs

Sitting development requires the development of front and back head control, the use of arms in propping and protecting forwards, sideways and backwards, and tilting or equilibrium reactions in which the head, trunk and limbs accommodate to disruption without propping.

Handling techniques can encourage the basic propping and protective extension reactions as the child is pulled up or dressed. (Fig. 39)

Fig. 39

Fig. 40

Fig. 41

Fig. 42

When a child who stiffly extends is held to sit he needs to be flexed and to feel an upright head rather than being held like a board.

This child is developing balance, but shows the plantar flexion of feet that may go with her knee extension. Here her feet are bent up or dorsiflexed in the functional situation where the problem is seen. As much as possible, ranging or stretching should be done in functional postures as well as on the child's back. (Fig. 44)

Fig. 43

Fig. 44

Here we have a dilemma - which is more important, straight knees to combat hamstring tightness, or straighter back to combat kyphosis? The child can't straighten her back well when the knees of her braces are locked, but can with legs flexed in bench sitting. (Fig. 45 and 46) It is difficult as a child gets older and must be positioned in school. Ideally

we would not have to neglect one for the other, and could vary positioning during the day.

Fig. 45

Fig. 46

Here we are placing one child in a "ring-sitting" position, grasping her trunk low and helping get hips bent. The other child is tailored, or Indian sitting. Both are encouraged to prop their hands and are in beginning stages of independent sitting. (Fig. 47) Ideally therapists would like to see legs straight and spread, but that may be too difficult for a situation when someone can't assist every child. The flexed leg positions enable the children to balance a little better and still stretch out the adductor muscles. Tailor-sitting is less used nowadays because the knee flexion contributes to hamstring tightness, although it allows a nice straight back and spreads thighs. This position is used chiefly when leg

Fig. 47

extension is so severe that this is the only way you can control the legs and get the child sitting.

Fig. 48

Here is such a child tailored in the corner which provides some support and enables him to practice balancing. (Fig. 48). Tailoring legs in the bathtub can help control extension when the child gets excited!

Tailor position is also preferable for a habitual "W-sitter" if the child has no significant hamstring tightness. (Fig. 49)

Fig. 49

Sometimes a floor chair is appropriate. Here are some guidelines for knowing when. This child is sitting with legs straight out and round back, and as he raises his hand he loses his balance. (Fig. 50)

Fig. 50

Fig. 51

Fig. 52

When his legs are ringed his balance and back are somewhat better, but the teacher aid still guards against his falling. (Fig. 51) The floor chair enables him to free his hands and to attend better to the lesson without working so hard to maintain sitting. (Fig. 52) The floor chair is meant for the child with some ability to sit but with inadequate balance to free the hands.

The half-tire works similarly for sand-play. (Fig. 53)

Fig. 53

Fig. 54

This corner chair is anoth type of floor seat, placed c a bench in thi case to let gr ity help flex this child's knees - a less frequent goal among children with cerebral palsy. (Fig. 5

Appropriate chairs are important for combating deformity and enabling the child to use his hands and attend well in the classroom. This child is extending his hips and flexing his back as he is stimulated by the classroom situation. Hand coordination for table work is difficult. (Fig. 55)

Fig. 55

Fig. 56

Fig. 57

Grain straps or "Y-straps" which come up between the thighs and pull back over the hips can be made--here the teacher converted a trunk tie for this purpose. (Fig. 56) Hips are now kept flexed, and back straight, without oversupporting the child. He can practice using the level of sitting he has. (Fig. 57)

There are many kinds of chairs and modifications used for children with cerebral palsy. This hammock seat is good for an infant grown too big for an infant seat but whose head and trunk control is not ready for an upright chair. A tilted up posture may encourage better visual awareness. (Fig. 58) General Motors and Bobby Mac car seats may also be helpful.

Fig. 58

Fig. 59

This abduction post helps keep thighs spread and st thrusting in a highcair, a simple armchair for som children. (Fig. 59)

A wedge-shaped seat cushi may also stop thrusting i a chair.

An adjustable kndergarten chair meets the needs of many children who have fair head control and who can sit erect with only partial assistance. A trunk tie may be used. A bench for dangling feet may give stability and help balance. For some children this may be important to counteract deformities of the feet.

The Hogg chair is a lightweight tubing and webbing chair which comes in upright and reclined models, and is useful in transporting many children. It is not expensive and may meet needs adequately until the child's size or skills indicate a conventional wheelchair. A few children will require a prescriptive positioning chair because of severe head and trunk control problems. These are expensive, whether commercial or handbuilt, and should be used for a rather restricted group of indications. Regular wheelcharis may be used for some children with the addition of firm backs or seats, wedge seats, or molded insert

A sit astride chair breaks up adductor spasm and enables some children to sit straighter, balance, and use hands better. (Fig. 60)

Fig. 60

Chairs should be prescriptive, both as to time in them and type. Two purposes should be considered - sitting functions and transportation. Important factors are cost and as normal appearance as possible. It is a good idea to consult a knowledgeable therapist when possible. Chair clinics may be organized by programs, with a consulting therapist and a carpenter making recommendations for needs of individual children and adaption of equipment.

Mobility Needs

Now that we have the child in a chair, get him out! Too much chair sitting is one of the chief causes of increased flexor deformity as a child grows older. When he uses his hands or tries to talk, the flexor spasm may be intensified through associated reactions. Structured time during the day needs to be planned so that the child's hips and knees are extended in prone or standing. Freedom for mobility is also extremely important. Let the child move - do not always position him. If he can move, don't carry him everywhere. Ask the therapist which method is best for a child so that he does not use a deformity-producing pattern such as turning his wrists in as he crawls on his stomach, or markedly flexed bunny-hopping in all-fours. Rolling may be preferable, or a prone scooter board. Seat scooting will be fine for some children, and you have probably found that many blind children will prefer this to crawling or creeping. Upright head posture may give them better spatial and directional orientation. For a spastic hemiplegic child it could contribute to further flexor posturing of the involved arm and the child might better roll or use the scooter board. Simply changing position by rolling over may insure some degree of mobility for more severely involved children. As a child gets older the therapist should be prepared to compromise - mobility may be the most important goal.

Standing and walking

Standing does not just appear when the child is nearing walking readiness, but develops through several stages from the newborn period on. Flexible weight-bearing, as seen in the bouncing 4-6 month old child, is an important early ability Rather than lowering a child to stand on stiffly extended legs and feet, bring him up from a squat-sit maintaining heels on floor. (Fig. 61)

Fig. 61

The ability to stand with legs spread and to extend trunk and hips is a necessary readiness for later skills of pulling up and standing alone. You can assist the child to stand up astride your leg. (Fig. 62 When you assist a child to stand, dangling him by the arms may be harmful to the shoulders. He needs to learn to use his arms for support and balance. You might better hold him by the trunk or hips for early standing work by a table to play. Appropriate methods need to be demonstrated by a therapist for each child.

Fig. 62

Standing tables are used in home and school to provide weight bearing for hip joint development, standing endurance, and a chance to be straightened out awhile. (Fig. 63) They provide balance practice to only a limited degree. More than this will be necessary to get standing balance. Deformities also occur because of bad postures or fit of standing tables. Their use is prescriptive and a teacher should consult a child's physician or thereapist.

Fig. 63

This is a prone-stander. These may be used to provide some graduated experience of upright posture and weightbearing, and encourage extension of head and trunk. Some can be alternated between prone and tilted-up positions. (Fig. 64)

Fig. 64

Encourage sideways cruising around furniture or walls. This is an important stage in getting balance and weight shift. When you see the child standing alone briefly or transfering from one piece of furniture to another he will enjoy propulsively walking a few steps from the wall to you. A shaping procedure in which two supports are gradually moved farther apart may be helpful at this point. You can also assist him from the front to hold a stick with both or one hand. The beginning walker may also

push a chair, where he does not have to place and replace his hands. This is rarely a harmful activity even when you are not sure what type of walking aids, if any, the child will need.

Some children with cerebral palsy walk without aids, others require crutches. A walker should only be used prescriptively for a young child with cerebral palsy. Therapists may hesitate to put a very young child in one as many bad habits are picked up that may intensify abnormal patterns and delay walking. For a child who is getting older and is unable to manage independent walking, a walker may be a means of assisted walking that could be valuable in his fight to maintain mobility and to his self-concept. The therapist will want to try the child out, look at alignment and his way of moving.

What to Ask The Therapist And What to Tell The Therapist

It is hoped we have given you some ideas about potential deformity producing situations which you need to bring to the attention of a therapist or physician. The therapist should give the teacher practical ways to support therapy goals with realistic consideration of assistance available in the classroom - some strategies that involve direct handling, some positioning and arrangements that enable the child to do something constructive while the teacher gives direct attention to another child.

The therapist should tell the teacher which present or potential deformities are of concern, and the purpose of an activity - whether it is to counteract deformity, whether it is to enable the child to function, or whether it is to acquire new ability. It is important for the teacher to indicate the need for positioning facilitating attention, or use of the hands, to help a therapist shift perspective. The teacher is concerned with many areas of learning, and

it is easy for therapists to program a child's activities too much around things he cannot do without help, and actually interfere with the child using cognitive or pre-language abilities he already has.

It is useful for a consulting therapist to visit the school and get a feeling for the classroom routine, the children, and the realities of staff and equipment, so that suggestions can be made in that context. If this is not possible a teacher should present a classroom routine to the therapist, pointing out activities that take place, times the child needs to see or attend, times he needs to use his hands, times assistance is available, and times for free play. The best source of a therapist for consultation is a pediatric center, where therapists will be familiar with techniques appropriate for children.

## Part II Deaf-Blind Curriculum And The Child With Cerebral Palsy

### The Blind Child's Orientation

When a child has a physical handicap and is blind, moving into the environment can be even more delayed than it is with the blind child or the child with cerebral palsy. "Ear-hand coordination" is an important pre-requisite, beginning with reach for object within reach, then out of reach. Object permanence concepts - that is, the child's understanding that an object still exists even when he cannot hear it or feel it, search for it, and imagery in whatever sensory channels are working for the child - appear to be related to readiness for orientation - mobility in space. In the normal child stranger discrimination is also associated with this stage of concept development. These behaviors are delayed in the "normal" blind child and may be particularly slow

when the child also has a physical handicap.

The teacher and parent may train the child in ear-hand coordination and systematic search strategies by first giving the child a noisy toy that he likes, so that he is motivated to find the object. A great deal of trust and recognition of the object's sound are needed if he is to reach for an unknown. The toy can then be sounded within reach, first on a table surface or floor beside the child, later in the air. Touching the object to a near body part and withdrawing it, but maintaining the sound, or guiding the child's arm can help the child in localizing the object. If the child cannot use hearing, he may use a tactile sweep of his hands, which the teacher should encourage to become more systematic and delicate. The object can then be placed further and further so that the child must stretch for it, and finally just out of reach so that the child must move to it by changing posture or whatever locomotor pattern he has. Greater distance can then be required.

Search strategies for an object when it is not touching or sounding may begin with the child dropping the object and searching for it where he last had it. Sound or touch cues can be given, then faded, so that the child must remember where he last heard it or felt it. As the child acquires this ability with objects outside his space, he begins more and more to move to and find certain favorite things in his familiar space world - the T.V., a rug he likes to lie on, a cupboard. Perhaps memory or permanence of objects is also associated with the child progressing from utilizing the same actions on all objects to exploring and recognizing them and using actions more related to the object's properties. Another useful strategy is consistent

placement of objects so that a child can expect to search in a certain place and find the object - for example rings of the rack-a-stack all at his right, or in a certain corner of a tray. Some of the problems in training self-feeding you might expect to improve as search and object permanence concepts are developed.

Often moving to a parent or teacher, or the record player, will be a stronger incentive than an object, as the child's interest in objects may still be limited. This strategy, of course, requires recognition of familiar persons and a good personal relationship. We have sometimes started with a prompted roll from back to side, with the adult then hugging, patting or kissing for reinforcement. When the child will turn without help distance can be increased, requiring the child to roll all the way over to prone and so on. If the child has some ability in prone to keep his head up, and has demonstrated play with objects; weight shift and reach in that position, a pivot or turn may be a step. Each stage the child goes through such as scooting, getting up to sit, or pulling up to stand should be combined with use of strongly motivating toys so that the child comes to think of using that movement strategy to get something. The child should have to move <u>to</u> the object or person; social or edible reinforcers given for moving out of this context may help in shaping the movement skill but have no effect on orientation. Avoid the mistake of repeating the demand too many times in a row or the natural reinforcer of frustration will outweigh any positive reinforcer you use. The child should have the object to play with and not have it immediately taken away again.

When a child appears to be nearing readiness for walking it is

important that the blind child acquire safe peripheral cruising and following of sound cues, and recognition of landmarks before being expected to cross space. I have seen blind children expected to take off for independent walking or crutch-walking with no idea where they are. It would be helpful to give the child a guide such as a rope across space to hold, or continued talking as you move in front of him, to guide him when he is ready to move from a landmark across space to a specific place or thing he remembers. As with any blind child, "squaring off" or turning 90°, is part of training in taking off from landmarks. When the child is beginning to cross space he should be taught to use his arms out in front to feel for obstacles or to cautiously feel with crutches or feet. Some preparatory work with a crutch-walker feeling for and hitting a big ball with a crutch may help. Working in the child's familiar living or shcoolroom space is important, rather than in the physical therapy department. One blind infant we worked with used his crawligator to move into space at home in an exploratory way. Instead of lying on it he crawled pushing it in front of him as a bumper. A scooterboard or chair might be used similarly. With every blind child with cerebral palsy teachers and therapists should carefully consider orientation level with each new motor level or goal.

Sometimes issues around orientation and therapy goals are difficult to resolve. For example, Barbara, a hemiplegic blind child, had progressed to moving to sounded objects or persons short distances on the floor by seat scooting, showed some memory for objects in search, and could walk slowly with either hand held. She had some beginning ability to prop and protect with her involved arm, and although she used the hand assistively with objects when directed, did not use it much on her own. She appeared to

lack good sensory perception in the hand and arm. Therapist and teacher agreed on the appropriateness of teaching her tracking of room peripheries and walls of corridors. They disagreed, however, as to which hand to hold and which should do the tracking. The therapist felt the involved hand should be used for tracking so that protective extension against walls could be encouraged. The teacher felt that the uninvolved hand should be used for tracking because tactile discrimination was needed if the child was to acquire any orientation skills. The problem was settled by a compromise - beginning orientation work would utilize the better discriminative hand for tracking. Therapy work would be done at a certain landmark with some work on protective extension against the wall with appropriate facilitation. It wasn't going to do the child much good to have a protective response in standing if the child was not going to move into space. Use of the involved hand with objects and sensory discrimination work would continue.

Co-Active Movements and Motor Circuits

Many teachers of deaf-blind children have used pre-language movement programs to prepare for symbolic behavior and imitation. These have included "co-active movements" based on the pre-imitative work of Van Dijk and "motor circuits." Teachers have interpreted these movement programs somewhat differently from place to place and have adapted them to the needs and level of their children, including severely handicapped deaf-blind children with cerebral palsy.

The typical co-active movement program is designed not only to increase motor coordination needed for exploring and exploiting environment, but to

establish differentiation of self from other, memory and imagery through tactile-kinesthetic channels as well as vision or sound, spatial concepts, body perception, and finally imitation.

The child may be guided through a sequence of postures and locomotor patterns on a mat or bench. Movements typical for a mat sequence are running, walking, knee-walking, crawling, spot scooting, and rolling. The beginnings of symbolic behavior are seen as physical guidance is faded to minimal prompts, or when postures cue the child to the appropriate movement. As a child becomes more co-operative slight physical prompts can be paired with gestures or signs which stand for movements. As some correspondence is established between body parts the child begins to imitate the teacher in the sequence, and then out of the sequence. Spatial concepts are introduced with emphasis of the beginning and end of the mat, and with backwards and sidewards movements. As the child shows some beginning ability to imitate unfamiliar movements the progression is to bilateral and unilateral limb movements. At this point group work becomes possible and reinforcing, and is preparation for the idea that a movement may mean the same thing to other people than the teacher and himself. Work with objects improves as the child begins imitation, and objects can be incorporated into the imitation program. Finally the child works on finer hand imitations, natural gestures and increasingly acquires signs. Graphic symbols can be introduced with pictures, then stick figures of body postures. In addition to the highly structured imitation sequences, the child and teacher experience many things together - splashing, sliding, climbing, jumping - a relationship preparing for communication.

In co-active movements the teacher and the child both do the activity, rather than always doing the activity to the child. This provide the basis for a symbol meaning the same to both - not "this is what the teacher does to me, or this is what I do." Co-active movement training can prepare the child for using the body as a medium of representation, with mental representation or imagery for body movements visual as well as tactile-kinesthetic. This is something more than the beginning signal level behaviors we see when a child learns to follow a few specific cues or commands through conditioning.

Motor circuits and obstacle courses consist of equipment arranged in a sequence designed to enlarge gross motor and body perception experience, sequential memory, and inner language in indicating understanding of what occurs with each object. Reciprocity or body language occurs with his teacher when the child holds up arms or indicates he wants more.

Our circuits or obstacle courses with ambulatory children have included equipment that provided some particular experience specific children needed such as stair climbing. The higher functioning children have enjoyed elaborate climbing arrangements and building their own arrangement. With a group of lower functioning but ambulatory children, obstacle courses might be more repetetive, consisting of only three or four items. The same arrangement would be used until the children indicated they remembered what came next and what to do. This might consist of something to crawl under, climb over, and to walk on or in. Then one component would be changed for a new piece of equipment requir-

ing the same general action, thus extending actions across objects. When children responded well to such changes, sometimes we might try a week when all units required crawling under, hopefully preparing for the idea of "under" as a spatial concept, not as a specific object.

Both co-active and motor circuit routines are useful as pre-language activities, and can be combined according to the characteristics of your children. Although both provide opportunity to acquire inner language and reciprocity, it is the correspondence between two bodies doing the same thing in imagery processes that prepares the child for using the body for communication methods which require imitation. If you have hopes that the child will be able to learn to use manual communication, either natural gesture or sign, it is a good idea to include some co-active movements with your circuit.

With cerebral palsied children one might emphasize a sequence of actions that the child can do at least with minimal assistance in a co-active routine. Working with the child in therapeutic motor activities such as sitting balance on the big ball, or with sensory stimulation activities such as swinging in a blanket, rocking on a tilt-board, or rolling in a carpeted barrel can be in a specific sequence. There is no magical routine or movements or equipment in a circuit - it is what the teacher does with it and its relevance for the particular child that prepares for language. Sometimes one gets the impression that some teachers believe certain movements are somehow specifically related to cognitive or language development, and all children must follow the same routine. I personally feel that co-active routines or circuits

be individually designed according to the abilities and needs of each child with cerebral palsy. One could use the same equipment but vary the activity for each child prescriptively. The mat might be used for co-active scooting with one child, facilitation of rolling responses with another. The big ball might be used for sitting balance work with one child, for trunk and hip extension in prone with another. The therapist can help the teacher to design activities which are appropriate for the child and safe. This is important especially with some immobile severely handicapped children, whose bones may have become very fragile with demineralization.

The child with cerebral palsy may not be able to imitate postures shown in pictures or stick figures but may be able to indicate which one of a pair is the same as what another child is doing. Because of motor handicap he may be unable to develop oral or manual speech, but may be able to develop receptive understanding for speech, signs or gestures. He may be able to learn to use a picture communication board for expression using arm pointing or eye pointing as responses. Work on understanding of functional use of objects and matching of objects to pictures will help in preparing for and probing picture recognition. Training in a reliable motor response to one object when it is named or its action word give, and then to choose the correct one of a pair will help prepare for choosing one of several choices of pictures. Hopefully you will be able to help the child use pictures on his tray for expressive purposes to indicate wants. Some children may be able to utilize symbols such as Bliss symbols which are graphic but more abstract than pictures, or to use written language. Consultation with speech and

language therapists familiar with these methods of communication with cerebral palsied children may be helpful when you feel that a child is understanding but severely limited by motor handicap.

PART II
Paraprofessional Workshop
May, 1975

# MEANINGFUL IDEAS AND ACTIVITIES FOR THE TEACHING OF TOTALLY DEAF - BLIND CHILDREN

by

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A paper presented at the Midwest Regional
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Water Tower Hyatt House, Chicago, Illinois
May 31, 1975

The classroom in which I teach is of an experimental nature. It consists of deaf-blind children who are all totally blind and with additional learning problems leading to slow progress in development of communication and of knowledge of their environment. Two of the children are profoundly deaf and two have functional hearing but varying degrees of language disorder.

The ideas in this paper are relevant specifically to these children, who are in the range of moderate developmental disability and are not necessarily descriptive of the deaf-blind child with normal intellectual ability or minor learning problems, who progresses much more quickly both in language and in knowledge of his environment. I am also going to focus on the child who must learn manually, rather than orally, for the paper, though my classroom includes both types of students. Due specifically to their lack of sight as compared to the more common deaf-blind children with residual vision, they need a classroom situation where their learning can be primarily through experiences in real life. This happens in our school as much as it is possible to adjust a classroom program to this. The more ideal arrangement would be learning within a home situation. Some of the exposures to life include simple problem-solving situations, re-creation within the classroom of life experiences as they happen in the world, and most important the direct exposure to immediate environments, for example other rooms in the school, other buildings on campus, stores such as grocery, department, and restaurants, as well as trips to teachers' apartments.

In essence what we are trying to achieve with these totally deaf-blind children is the provision of experiences of what the world around them is like, stimulation to think about the world, to develop enough curiosity to want to explore on their own, and to provide a communication system to express themselves and to function adequately within their environment.

More specifically the set-up of the classroom consists of a teacher-student ratio of 3-4. This provides for individual instruction for most of the day. Group activities are also scheduled to promote more social interaction among the students. Because the children are totally blind the classroom is tactually oriented. There are specific areas which include work, snack/cooking, play/gross motor, and "messy." The position and placement of the furniture serve as cues to the areas as well as boundaries and dividers. Each of the children have assigned textures to represent his own personal things such as coat hook, chair and desk, and daily calendar. The children can then identify their own things and eventually the other children's.

The materials in the classroom are mostly re-cycled items such as sponges, cardboard of various sizes and shapes, beads, buttons, materials and yarn, boxes, wood and other things. These materials are even more useful for sighted children but are used effectively with the totally blind child. There are some commercial toys but often the children lose interest quickly in them for a number of reasons. Their interest lasts just long enough to explore the new object. It seems they are more interested in the spongy, squishy, smelly, or furry things and are more creative in their play with them. The

materials seem to have more variety of uses for the child. Useful materials found in the home of the teacher and used effectively with the children are things like cooking utensils, dishes, clothing, hats, shoes, bags, pocket books, objects with the same or different qualities, smells and whatever else there may be. The materials themselves offer so much in developing both concepts and language for the slow child. Simple conversations can happen as well as the naming of objects, sorting by shape or texture, the learning of functions of objects; what a spoon is for, what one does with clothes, the use of a pocket book.

Because of the level of the children only a part of the day focuses on what one would term "academic" work. Much time is spent doing active, fun activities to further expose the children to the world. The aim is to help the children to become, in their own way, happy, not in a passive way, but as reasonable people in the society, to be able to cope with situations by learning to be as organized and competent in their environment as possible. Much of this is determined by their capabilities for independence and for communication development. As a teacher, each simple step of growth pleases me.

As previously stated teaching/learning is active. A procedure that attempts to relate things as closely as possible to real life. A few examples of what is done by both totally blind and partially sighted children are: "snack jobs" where each child has a job to do in the preparation for snack; it could be to make the snack, to get the cups, to set the table, or whatever has to be done. The job lasts for one week and

it gives the child the experience of finding his way to the kitchen and in becoming more aware of classmates through the social situation of group snack. The child who prepares snack may also go on a field trip to buy the food. It is so important to remember that because the child is totally blind he doesn't know where things come from. Do they just appear on the table? Maybe they do. The child should participate in getting the object from the shelf, in the box, or at the store so he will learn that things just do not appear. By having the child actually get the item he is given the opportunity for language development. After the child has performed the same task several times he should indicate learning or mastery of the task by spontaneously signing something about the task, by naming what is needed or missing, by getting what is needed, by performing the task independently. This applies to any learning situation where it requires spontaneous or creative thinking.

For learning to happen it is especially important for a totally deaf-blind child to be as involved as possible in activities. In the beginning much manipulation may be necessary until the child is familiar with the task. Repetition of an activity is necessary in order to develop skills and memory of the routine. Some variety should be be provided for to help maintain the child's interest as well as the teacher's.

The class takes field trips 3-4 times a week to the local grocery store, small department stores, restaurants, apartments

of teachers, lakes, parks, and playgrounds. The trips to the grocery store usually happen before cooking class so the children will know where the food comes from. We go to the same store repeatedly to become familiar with the store, the location of kinds of food, and to reinforce past trips. We also go to expose the children to the procedure of how to buy something and then ask the child to carry the bag back to school. Restaurant trips put the children in a larger social situation where they learn what socially acceptable behavior is, how to wait for food, and that there are many different kinds of food and many kinds of restaurants. Apartment trips aim to teach that people have common furniture in their houses such as chairs, tables, beds, stove, and other furniture. People also have common rooms and the children should eventually be able to generalize about homes from the above reference points. They also should learn socially acceptable behavior in a home, how to function reasonably well in different environments, how to cook in a different kitchen, and to perform various household tasks. The child may not be able to generalize immediately from these experiences but at least he will be consistently exposed to the different environments. This is so important for the totally deaf-blind child who loses out on so much. He needs to be told about what is all around him. The trips also include playgrounds, parks, lakes and similar kinds of trips. These are particularly fun and are rich with language possibilities.

The children can feel the water, the mud, hard rocks, bumpy hills that are fun to roll down, the raindrops, the big splash from the rock thrown in the water, and whatever else happens! These trips can be filled with fun, new exposures, and language input.

An additional activity is that of "making useful things" for the classroom, for example a "container." There are so many kinds of containers to talk about. The children make bean bags and pillows (fill with something), cover boxes with material to use as a special container, pocket books (to carry things in), different kinds of bags, all of which involve a concept occurring in daily living. There are endless concepts the children can learn and talk about as well as be a part of. The classroom requires an active participation which can be difficult for some children, but there is a gradual improvement in their willingness to participate. This depends on attention span, degree of distractibility, level of interest in the children.

A new concept has been tried in the classroom since September. It involves planning a series of activities around a specific verb or adjective. A list of action verbs was taken from a language curriculum. Examples from the list are: wash, pull, build, push, roll, cut, jump, and dig. These verbs are followed by a variety of nouns and thus the children are exposed to the action of the verb and the objects with it. An example is: "cut" There are many things in the room

that can be cut: clay, playdough, bread, string, material, fruit. The tools used to cut could be a knife or scissors. Whatever the verb is it provides for language learning. The child may not necessarily learn the signs for the words but he may, after performing the task several times and given the necessary items, perform the action spontaneously or at least show some recognition of the action. Similar lessons are done using adjectives. They can be more difficult because some are more abstract for the child. Adjectives can also be much fun and exciting as the child is exposed to language. Some examples from the list include round, soft, big, full, empty, and dirty.

It appears the children enjoy this kind of activity. The initial adjustment was slow as the concept was so new to the children. As time goes on I can see the children making progress and associations between a verb and an object they are in contact with. An example is after working on "roll" for a week one student got inside a big red ball that did in fact "roll" and she signed "roll."

Active learning is good but as stated earlier a child has to get himself together and organized in order to think about himself and his environment. In order to achieve this he needs a more quiet learning time which is closely structured and with little distraction. During this time, about 35-40 minutes, the child is asked to do tactual discrimination of qualitites of objects such as size, shape, texture; association of objects by function such as furniture, clothing,

cooking and eating utensils; representation of large objects by making smaller replicas and by "tactual pictures."

Throughout the paper I have referred to language and communication. This is so important to a totally deaf-blind child and often is very difficult for him. I think that our basic body language can and should communicate much to the child. For young children their only way of receiving messages is from the teacher, the movements, and the mood. I know for myself that if I am tense, ugly, happy, excited one student in particular is very sensitive to my body and the ways in which I react to and with her, the way I move with her, and how I talk to her. It is important to communicate enthusiasm and excitement, to pantomime things, to use gross body gestures to attract the child's attention. I think the more close physical contact there is the better it is, especially for the young child. He needs to feel secure, safe, and loved. He needs constant contact with people he knows, people he can develop a sense of trust and security, and to know that he will not be left alone for long periods of time. The children get these feelings from the manner in which people deal with them and how they communicate with them. Be gentle but firm when necessary. Get angry when appropriate but don't hold a grudge! Five minutes is long enough and when the time is finished forget it and relax with child. Anger is good for the child to experience just as happiness, sadness, and excitement is. When walking with the child stay in close body contact with him. The child may fear the vast space where he is,

may fear falling, or bumping into something, and sometimes it is just nice to have a hand to hold or a body to cuddle against.

Mobility for the totally deaf-blind child should be strongly emphasized. So many totally deaf-blind children have problems with space and how to move through it. It is filled with so many barriers and objects for the young child. While walking with the child both indoors and outside, point out objects to the child so as he travels the same route over and over he will become more familiar with what there is and he will have specific cues to tell him where he is. Show the child where the sidewalk begins and where the dirt ends, where the gate is, and the trees. These can become landmarks for him as he moves through space. The more associations and cues the child has the safer and more secure he will feel. While walking also use body movements as cues. A young child can follow movements along with tactual cues such as a pull on the arm to indicate "step up," a pull down to mean "step down," or to cummunicate the necessary message. These cues are helpful to child and all it requires is emphatic body movements and language from the teacher. The child should also learn routes in the classroom building to encourage independence, for example the route to the bathroom, to his coat hook, to an activity not in the regular classroom. An evaluation by the teacher will determine how much independent mobility is good for each child. Once the child knows the route then there is no reason why he can't travel alone, that is without the contact of the teacher.

Although body language is important and requires much emphasis while teaching, the child needs a formal communication system. Usually the child first learns the signs for action words such as eat, drink, walk, and basic nouns that he is in contact with daily, such as coat, shoes, car. Initially then, the child is given signs for those things that are very relevant to his needs, desires and basic functions. It seems that some totally deaf-blind children have more of a desire to communicate than others do. They may be highly motivated to talk to people but really don't have an interest in doing any kind of work or they may really enjoy work and basic tasks but haven't yet realized what communication is all about. It is important to reinforce the signs being taught. If the child knows the appropriate sign for something then wait for him to either attempt the sign or to do it correctly before giving him what he wants. Also reinforce with a pat on the back or some praise. The more input from the teacher the more chance that the child will communicate.

The students seem to understand receptively before they express themselves. It may take a long time before language expression is spontaneous. Once the child has mastered some action words and some nouns and has begun to understand communication then he can begin to actually name objects himself. The procedure often takes the child a long time to learn. It is different from signing something like walk, car, coat where something happens afterwards. When naming objects nothing really active happens. The child is given the object

then the sign and is asked to make the same sign. When completed the object is put on the table and another object is given to the child. This is different from the more conversational language used up until now. As stated earlier naming of objects should not be taught until the child indicates some understanding of communication and signs and is fairly competent with what he knows.

The procedure used for teaching signs to the totally deaf-blind child is a simple one. Many people don't think it is possible for a totally deaf-blind child to use sign language. There are however, several children in the school who are using sign language quite competently. Fingerspelling is more difficult especially for slower children and the students in my classroom do not fingerspell. The question has been raised many times as to whether signs should be made with the child's hands or the child following the teacher's hands. Initially it should be done with child's hands then shifted if possible to the teacher signing and the child following. The signs should be clearer and better understood by this method. As much as possible formal signs are taught, but some adaptations may be needed for the blind child. One student in my room is quite clever at making up her own signs when she doesn't know the appropriate sign. She sometimes makes up a sign very close to the formal one.

Reinforce signs as often as possible. When jumping on the trampoline, periodically sign "you jump," while walking sign " you walk plus destination." Use simple 2-3 word sentences or phrases and emphasize the word the child is learning. By

using simple sentences (if the child has reached this level) he will be exposed to the basic sentence structure and patterns of language. This is helpful especially if the child has higher capabilities to communicate. Talk to the child while going someplace; the child may forget where he is going so remind him and point things out to him on the way. Make the activity fun and relaxing for the child and let him experience your enthusiasm. The child may also enjoy a hug or words of praise. Remember to continue the practice of good body language as well as use of signs. Body language can also include voice. It is surprising that the child may also pick up messages from the voice as well. In essence the whole body talks to the child.

To reiterate the basic steps in teaching language to slow children: the teaching of basic gestures and some formal signs to include action words and some name words involving an action. These can be both receptive and expressive. When the child has a good grasp of this introduce the naming of words. For some children this may take a long time.

Time is a concept I am presently working on with my student I have made a sequence calendar representing activities of the day. It consists of a series of 4-5 boxes, stapled together to form a row. The number of boxes depends on the number of scheduled activities. An example of the content is: box number one would have a small table in it to represent "work," box number two would have a small cup to represent "snack." The teacher can be creative with what objects are used for the calendar. The important thing is to communicate to the child

what will happen and in what sequence. He must also learn what the objects represent and eventually should be able to sign the activity. As the concept level increases the following words can be introduced: now, later, yesterday, tomorrow. If the child is reading braille then both tactual methods can be employed to help the child to know what will happen during school day.

In conclusion I would like to re-emphasize the importance of communication with the totally deaf-blind child. Use whatever system the child is capable of as well as body language and gestures. Let the child know he is loved and cared for and that he can trust the people he is with. Talk to the child to develop language and for the sake of chatting to become good friends. Help the child to function, to cope with people and situations in his environment, and encourage independence in performing specific tasks. Give him big hugs and lots of affection to reinforce both learning and friendship.

# LIFE IN TACDAL

or

# CAN MULTIPLE - HANDICAPPED STUDENTS REALLY TEACH DEVELOPMENTAL SKILLS TO THE STAFF OF A DEAF- BLIND PROGRAM?

by

Catherine Wertman
TACDAL Program
Beatrice State Home
Beatrice, Nebraska

A paper presented at the Midwest Regional Center's
Paraprofessional Workshop
Water Tower Hyatt House, Chicago, Illinois
May 31, 1975

# Life in TACDAL, or, Can Multiple-Handicapped Students Really Teach Developmental Skills to the Staff of a Deaf-Blind Program?

Catherine Wertman
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Ideology, or the body of ideas on which a particular system is based, is a very important aspect of any program for multi-handicapped. Just as everything a person does in day-to-day living reflects his basic philosophy and principles of life, everything that he does for, with, or to the multiple-handicapped reflects his basic ideology concerning these people. Therefore, it is highly desirable to formulate an ideology, or a way of thinking about the handicapped, before proceeding with a program. This allows a person to control his own actions and reactions within a program. Everything he does in relationship to the multi-handicapped will reflect how he thinks of them. If he controls this from the beginning, all his plans and actions can be tested against his ideology and evaluated for consistency. The purpose of developing an ideology is not to make a person rigid, but rather to free him from indecision in day-by-day actions. Every decision that is made can be facilitated by measuring the alternative against the ideology. Ideology is flexible in that it can be re-evaluated and improved upon at any time.

The TACDAL ideology is made up of two components: the philosophy and the basic premise. The philosophy of the program is normalization--every person, no matter how multiple-handicapped he may be, is entitled to an educational program that helps him to become as normal as possible through as normal of means as possible. The basic premise of the program

is that everyone can learn and develop to a higher level of functioning on a continuum. The learning curve does not reach a certain point and stop for a retarded person any more than it does for a normal person. Growth and development continue from conception to death for every human being, and each person is entitled to the encouragement he needs to keep him moving along the continuum.

The next step before formulating ideas for activities is to know the student who is going to do the activities. By "know" I mean that you must have developed and continue to develop a personal relationship with that student. You must know him well enough to be able to read his body language, to know his expressions, to understand his likes and dislikes, to be able to accurately anticipate his reactions in a variety of situations, and to understand and anticipate your reactions to him in a variety of situations. It must be an in-depth relationship resembling that between very close friends, between mother and child, between father and child. This is extremely important for many other reasons, also, that I won't go into in this paper. However, it may be helpful to remember that for many severely multiple-handicapped students this relationship with you may be the only close relationship with a significant person that is available to him. We have found that a student will nearly always do better with whatever activities are planned for him if he is doing them with or for a person who is significant to him in a positive way. This relationship can make up for some really stupid selections of activities. Likewise, enthusiasm from the staff can cover up

some pretty lifeless and boring situations.

Working from this special relationship that you have with the child, it is much easier to determine where the student is currently functioning and where he's coming from emotionally. All activities you design for him must be appropriate for both his developmental level and his emotional climate. In TACDAL we use a normal developmental sequence checklist for determining where a student is functioning and for writing our objectives of what he should learn to do next. This process is accomplished by the person who has the closest personal relationship with that student so that his emotional climate may be taken into account in the writing of objectives and in the designing of activities.

Probably the scariest thing about being a significant person for a student is the idea that you then become a model for him. Everything you do is an example. You are modeling any number of actions of which you are not even aware. For this reason, it is extremely important that you have your stuff together in your mind concerning your basic ideology. Then you don't have to be conscious of your every movement and word. You can proceed with confidence that you are modeling appropriate things for your student.

Earlier I mentioned enthusiasm as a good technique for covering up boring situations and activities. I would like to expand this by talking about environment, including both the emotional atmosphere and the physical facility. Let's start with physical facility. TACDAL is located in the Nebraska state institution for the mentally retarded. Our first

classrooms were (and still are) just up the hall from the Infirmaries, which house the most severely handicapped residents of the Home. Many of these residents are students in TACDAL. Four years ago, this was a pretty dreary area. It looked very typical for an institution. At that time, it seemed that the most handicapped students always got the least and worst of everything. So, we set out to make TACDAL the most exciting place to be on campus--and maybe even in the whole world. By adding as much color as we could find--including some very un-institutional orange, yellow, red, blue, etc.--we provided a contrast with living unit environment that was recognizable to every resident who had any vision at all. By providing a large variety of noise makers, including our own voices, we created a sound environment that every resident with hearing could recognize. The first transformation that was noticed by the administrators of the institution was that the students seemed so much more alert, and were so much noisier, than they ever had seemed on the living unit. The students were beginning to come alive. An exciting physical environment can awaken the most passive students and staff. Likewise, a warm, supportive, and enthusiastic emotional atmosphere can spur responsiveness in the most hostile, self-stimulating, or withdrawn individuals. I'm speaking of both students and staff. Enthusiasm is contagious--for all of us. I think that the emotional atmosphere is so important that I'm going to suggest to you activities for students and activities for staff that I think promote warmth, support, and enthusiasm. If the staff hasn't got it, then the students aren't going to get

it. And, the emotional atmosphere can enhance or destroy any effect created by the physical environment.

(By the way, we found that as we improved the environment for these residents, the attitudes of institution staff towards these same residents also improved--to the extent that when the new Activities Building was constructed, these students were presented the most exciting and newest classroom space available to the institution. Enthusiasm breeds enthusiasm.)

Now, I've talked about the environment getting a reaction out of those students who can see and hear. What about those who can't? When TACDAL first started, most of the students who were considered deaf-blind were so low-functioning and unresponsive that it was virtually impossible to tell what vision or hearing they might have. So, we started with them assuming that each one could hear something and see something. We saw our job as finding out what it was they could see and what it was they could hear. We then would teach them to look and to listen. It is my feeling that with very low-functioning students the major visual handicap is: not to have learned to look. Likewise with this type of individual the major hearing handicap is: not to have learned to listen. Later it may be found that there are true physical handicaps as well, which we are finding with many of our original students; but such handicaps are more testable if we have tried to teach vision and hearing. Since the first days of TACDAL we have learned much about positioning of the student (which you will

see in the tapes) and positioning of the stimulation (which you will also see in the tapes) in order to facilitate use of vision and hearing.

I have kind of a complicated arrangement with the tapes. The "ongoing" tape will show you a number of activities that were going on in the classrooms the day I took the camera around. These are normal TACDAL activities. I tried to get as many as possible so that there would be a better chance of you seeing something new. I will stop the "ongoing" tape several times during its course in order to show you some five- to ten-minute tapes that elaborate on some of the subjects that come up in the "ongoing" tape. If it gets confusing, yell, and we'll stop and rest. The tapes are fairly fast-moving, so don't plan to take any notes--you might miss the one thing that was truly a new idea for you. Besides, I have taken notes for you, which I will distribute at the end of my presentation.

TAPES

Multisensory Dressing

Feeding

Functional Positioning

Story Time

Co-active Movement

Sensory Stimulation

Music

NARRATIVE FOR MULTISENSORY DRESSING TAPE

With many of the higher functioning deaf-blind students it can be a good learning technique to teach self-help skills at the time of day that the student should actually be doing the activity: for instance, he learns dressing skills in the morning when he gets dressed for the day and in the evening when he undresses for the day. He learns self-feeding at mealtime. He learns toileting by going when he needs to. And so on.

Well, we have found these times to be good learning times also with those who are lower functioning and may not seem to be able to learn self-help skills yet. The Dressing Tape shows a multisensory approach to dressing that we have recently initiated in TACDAL. The child in the tape is not learning to "dress herself"; however, she is learning about her self and her clothes. We try to incorporate sensory stimulation to several senses: vision, hearing, touch, kinesthetic. And all the time she is held in a very safe, close, warm contact with the person dressing her. Many of our students were very fearful of the dressing process prior to the initiation of this program. We saw the fear disappear in most cases during the first session. We call these pre-dressing skills--they are also pre-body awareness skills, pre-sensory awareness skills, pre-social skills, etc. These techniques can be used with the most profoundly mentally retarded, multiple-handicapped individual you can find on the face of the earth. They can also be used with normal infants, and many mothers do so.

NARRATIVE FOR STORY TIME TAPE

We use story time with all ages to give the students practice in listening to a normal human voice in a conversational tone. We also use it for teaching attending behaviors, and sometimes purely for entertainment. Unfortunately, most of the short story books that are appropriate for the understanding level of our students are stories that are not appropriate for their ages. For this reason we do a lot of ad libbing.

Now, uninhibited ad libbing is an art. Bruce, the person "reading" the story in the tape, is an artist at uninhibited ad libbing. Every program should have one of these people on their staff. His presence can have a fantastic influence on others around him. Imagination and creativity in most people have to be stimulated on an ongoing basis. And you have to use them in order to make them grow.

Before Bruce started working for me I had to do most of the stimulation of imagination and creativity in the staff. It does not come naturally to me. However, since it had to be done by someone, I did it. My own imagination and creativity have grown tremendously as a result of having to use them. Now, with a Bruce on our staff, I find I spend more time holding people back than pushing them. It's a much easier job.

You are about to hear a story commonly called "The Gingerbread Man." He will never be the same again.

Bruce Hauser has written a paper for our staff on Stimulation and Growth of Creativity and Imagination in the Human Mind. I have a few copies of it here today.

NARRATIVE FOR SENSORY STIMULATION TAPE

This tape starts out with a figure-ground confusion. I was trying to make it really obvious that sometimes even we with normal vision have difficulty picking out what we want to see from a confusing background. Therefore, someone who is just learning to look, to focus and follow, probably has an even greater problem. Visual stimulation must be placed within the student's visual range and it must be easily distinguished from its background.

The same is true for auditory stimulation. It is best if the activity on the tape takes place in a quiet room. The primary sound stimulus here is the human voice, which can be hard to pick out in a noisy environment. The activity itself is quiet and restful, so should be done in a place apart.

This tape shows a very simple technique for providing sensory stimulation to all senses. All that is needed by way of equipment is a rocking chair, a student, and a staff member. This technique can be used at any time of day, with any two people, and it can even be done without the rocking chair.

Holly begins with rocking and singing, thus providing vestibular and auditory stimulation. Eric can feel the sound vibrations of her voice because he is held close throughout the sequence. Because Holly's face is well within his range of vision, Eric can see her lips move. Holly can lift his hand up to her mouth and he can feel her lips move while

receiving kinesthetic stimulation to his arm. He can feel the warmth of her breath. Also, in holding Eric in an upright sitting position and his head in midline, Holly has provided the best possible position for Eric to use his senses. Thus several senses can work together to process one basic stimulation--the human voice.

Throughout this tape you will see stimulation of touch, vision, hearing, kinesthetic, and vestibular senses. If Holly is wearing perfume or perspiring Eric can smell her as well. By incorporating something to eat or drink into the sequence, it is possible to include a combination of taste and smell.

Certain other concepts can be worked on with this activity, also. For instance, Holly uses the concepts of start and stop, rhythm, body awareness, and close personal contact.

I think that this one activity, although a very simple one, provides the opportunity to incorporate many objectives into just one activity. If a staff member is alert to such opportunities, he will be able to use many seemingly ordinary everyday activities to accomplish his goals with the student. It is not always necessary to create highly structured situations to provide for learning experiences.

Holly Bohling has written a paper for our staff on Sensory Stimulation. I have a few copies of that available here today.

NARRATIVE FOR FEEDING TAPE

The TACDAL feeding program is designed and run by our Occupational Therapist, Kathleen Keller. She evaluates each individual's oral and social skills, and sets up objectives for their personalized eating program. There are two primary objectives for the feeding situation: to improve the student's eating skills, and to develop self-feeding skills where possible.

Improvement of eating skills will result in the improvement of digestion of food, reduction of the struggle for a student to eat, more ease in feeding the student because of his increased cooperation and participation, and an increase in the student's enjoyment of the meal by more normalizing textures and flavors.

The training in self-feeding skills, in addition to increasing individual independence, may also have as end results a more normalized meal time, and more freedom of staff to spend time with others.

Generally, the students are worked with one-to-one at mealtime, with a number of them now participating in group family style for social interaction during the meal.

Kathleen Keller has written a paper for our staff on Feeding, which I do not have available here. For the most part, the techniques used with individual students are not transferable to other students and should not be generalized. Instead, you should get consultation from a Registered Occupational Therapist when setting up goals for oral skills.

NARRATIVE FOR FUNCTIONAL POSITIONING TAPE

Many of our lowest functioning students have spent the greater portion of their lives lying in bed in the same position, either prone or supine. Change of position over the years has usually only been for the purpose of preventing bedsores. Of course, we've always known that upright posture was necessary for good feeding and drinking. But during the last two or three years in TACDAL we've learned that upright posture is also necessary for good use of eyes and ears. Try lying on your back and reading a book, or try locating a sound while lying on your back.

We have many students who cannot change their own positions. So we do it for them and prop them wherever they need support. All the positions we use are prescribed by the physical therapist individually for each student. Although the person doing the positioning of Eric in the tape is our physical therapist, he has trained the classroom personnel to position the students. We use side lying with Eric to get fixation with his eyes. When he is supine his eyes are stuck in one position and are incapable of focusing. In side lying he can fixate on a person's face or an object. Eric has two supported sitting positions: on the lap when he is to be worked with in one-to-one; and on the green wedge when he is to have passive stimulation. Eric is capable of much more functional vision when side lying or partially upright. This is generally true with most of our students.

NARRATIVE FOR CO-ACTIVE MOVEMENT TAPE

Most of you are familiar with the co-active movement technique. This tape demonstrates Allen's adaptation of co-active movement. Allen is a beginning walker. He's eighteen years old--don't let his size fool you. To me he's a lovely example of it never being too late to start on developmental skills.

Allen's sequence is based on what he is capable of doing physically. He is at the point in the progression where he is cooperating and initiating some of the activity himself. He is very vocal during his co-actives, although I don't think you can hear him on the tape. At the time of the tape he did not have any words that were understandable, but now he is beginning to say the names of various people who work with him. It has been helpful that most of the significant people in his life are named Cathy; however he is also saying "Bob" appropriately.

You will see that all the concepts are incorporated into Allen's sequence. He gets the language with every cue. He gets beginning and end of every activity. He gets his space defined. He gets consistency in cues, in time of day that he does his co-actives, in the place in the room where the mat is laid, in the person who does the sequence with him. And he knows what is to happen in what order.

We do co-actives with all functioning levels--based on the type of activity the student is capable of doing. In some cases it may only involve passive leg and arm movements in time to a song. The concepts are still followed no matter what

the physical activity.

Jim Fruehling has written a paper for our staff on Co-Active Movement. I have a few copies of that available here today.

NARRATIVE FOR MUSIC TAPE

One of the best activities that I have found for both students and staff is that of music stimulation. Many times we have used it to give a lift to the morale of staff, while providing another type of learning experience for the students. We have used the stereo and phonographs extensively, although nothing makes it like live music. Over the years we have had available to us expertise on such instruments as piano, organ, guitar, flute, autoharp, accordian. Many of you can play a musical instrument. You don't have to be a virtuoso--the main thing to remember is that you should be able to play march time and waltz time, with emphasis on the rhythm. This will give the students an opportunity for discrimination. We also try to vary the types of music from classical, to ragtime, to contemporary, to show tunes, to whatever, the idea being that if one type doesn't reach a particular student, another will.

In the music tape you will see and hear the following concepts: start and stop, fast and slow, loud and soft, long and short, march and waltz. You will also see kinesthetic and vestibular stimulation. Some early language skills are being worked on, as the beginnings of speech are identical with the fundamentals of music--pitch, volume, intensity, and rhythm.

I would like to have you watch the staff as well as the students in this tape. Their enthusiasm makes all the difference in how the students respond to the music. If the

staff respond well, so will the students. If the staff are blah, the students will be too. This is true with any activity, but especially noticeable during music class. You have to feel the music and move with it in order to help the student do the same.

Music can be used to liven a group, or to calm them down. It can be used to influence moods. We've seen students doing their self-stimulation activities in time to music, and have been able to slow them down or speed them up by varying the tempo of the music. We have students matching notes up and down the scale even when they have very few language skills. You can use music very creatively with your students.

Jim Fruehling has written a paper for our staff on Music Class. I have a few copies of it available here today.

I would like to make a few general statements in conclusion, then we'll open it up for your questions and suggestions.

Please keep in mind that every activity you have seen today has been individualized for one particular student at his functioning level, at his emotional climate, to be done with or for his significant person. It is not possible to do exactly the same activity in exactly the same way for optimum results with two different students. Hopefully, every activity has as its end result that the student will be helped to become more like normal. You've seen a lot of special relationships in action. We have found that this relationship is frequently the most reinforcing thing in the student's life--and in the staff person's life. Use it. Also, use your imagination and creativity (you were born with it) to develop your own activities and adaptations of activities. You don't have to rely on other people to think up everything for you. You don't have to copy what someone else does. You, if you are the significant person in your student's life, know better than any other person what is best for him at any given time. Use your knowledge and understanding of him to help him grow. And feel free to let him help you grow. It is mutually rewarding.

COMPLIMENTARY NOTES

Catherine Wertman
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Student activities as represented on tapes

Use of stereotyped picking up and dropping motion--textures, weights, temperatures, shapes, sizes
Use of stand-up table position for visual activities
Development of head control by use of vision stimulus in sitting
Multisensory approach to dressing
Oral skills during juice time--nipple, snorkel cup, lip glass
Definition of environment by cube, sociabowl
Use of vision in prone to gain head control
Interpersonal relationships used as reinforcement
*Interpersonal relationships used as interpersonal relationships
Pegs--grasp and release on command
Functional positioning--side lying, prone, partially upright, sitting, standing, use of pillows, bolsters, wedges, head forms
Use of mirror for self-concept, body awareness
Use of monster for visual stim, reaching
*Use of sociabowl for social interaction, experiencing closeness of another human being
*Story time
Puzzles--for visual motor, following commands, language concepts
Coactive movement
Use of mushroom for vestibular stim
Object identification (cup and ball)
Number and color concepts with red blocks
Use of molehill for vestibular stim
Physical Therapy crawling technique (must not be used indiscriminately)
*Sensory stimulation of all senses (rocking chair)
*Music for language, rhythm, moods, movement, morale, etc.

Student activities as represented in photo album

Beach ball for visual motor
Hollow ball for definition of environment, positioning, vestibular stim, auditory stim, privacy
Stand-up bars mounted on wall
*Use of human body for movement and support of another human body
Bolster to aid in flips
Drum
Beans in wading pool
Arches for under, over, and to use as tables
Vestibular board
Mobiles for passive visual stim, reaching

*Activities marked by asterisk are especially good for staff as well as students.

COMPLIMENTARY NOTES Cont.

Photo album cont.

Mirrors
Painting body parts on person with paint and brush
Scarf over head for survival skills
*Wiener roast in park
*Christmas program (still pictures represented by students)
*Valentine party with accordian
*Music class with rhythm band instruments
*Wheelchair track meet
Pudding painting
*Organ concert at church
Scooter board for position in space
*Wading pools
*Stereo
*Children's Zoo out of town (by bus)
*County fair, including rides
Pillows and bolsters and wedges, and Virginia
*Fourth of July wheelchair parade
*Open House
Coactive movement
Feeding skills
*Christmas dance
*Socialization class, with dress up and dates
*Halloween party with everyone in costume
*Trip to the farm
Giant tinker toys for visual motor and definition of environment

*Activities marked by asterisk are especially good for staff as well as students.

HV1663 Collins, Michael T., ed. c.1
C694 SHARING DEAF-BLIND
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AMERICAN FOUNDATION FOR THE BLIND
15 WEST 16th STREET
NEW YORK, N.Y. 10011

Printed in U.S.A.